

Ross Engineering Letter

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James A. Ross, Editor

COUNTERMEASURES (CTSC) HANDS-ON TRAINING COURSE

FOREWORD

As this is being written, we're in the process of moving to our new facility in Virginia located next to Washington's Dulles International Airport. It's easy to get to, so no one should have trouble finding us. The facility design is ours, so there should be no problem with its suitability. The training course has been in design for years, so it should cover everything that needs to be covered, and have none of the gaps and superfluities of the others.

In short, we're ready to go, and you're invited to take advantage of the following special offer designed to start the school off with a bang.

SPECIAL OFFER

If you are among the first dozen students who sign up, you'll be entitled to three weeks of training for the price of the first week alone.

Don't misunderstand. To qualify for the special rate, you do not have to participate in the first course; you just have to be among the first dozen who sign up. Also, when you do take training, you will not take the full three weeks in one session. You may do one week and later two; or two and one; or one, one, and one. That's your decision. You may take any one or two-week segment of your training during any scheduled class.

We think that this is a super opportunity if you are in the field, or thinking of entering the field. Check this over carefully, but don't delay; the special offer is for only the first twelve people who sign up. To register, use the enclosed form. Call if you have any questions.

THE SCHEDULE:

During 1991, this course is scheduled as follows:

<u>Course #</u>	<u>Week 1:</u>	<u>Week 2 or 3:</u>
101	Feb 25 - Mar 1	Mar 4 - Mar 8
102	Apr 1 - Apr 5	Apr 8 - Apr 12
103	Jun 3 - Jun 7	Jun 10 - Jun 14
104	Jul 29 - Aug 2	Aug 5 - Aug 9
105	Oct 21 - Oct 25	Oct 28 - Nov 1

OUR TRAINING PROGRAM, WHAT IT IS AND IS NOT

It is a course which includes both theoretical technical information and hands-on training. That means that, in addition to lessons in the classroom, you will personally work with modern countermeasures equipment. "Hands-on" to us does not mean that we demonstrate the equipment; it means that you take it into your hands and make it work.

The classroom instruction is not eight hours of lecture every day, nor is it a copy of old government courses. There will be no effort wasted in studying threats which no longer exist. You will not be required to do tests or measurements that have no chance of detecting any communications compromise. You will be taught modern methods.

The course is focused on its goal. Therefore, you will not be subjected to such unnecessary exercises as memorizing color codes, but you will be expected to learn what the technical terms mean. Instructors with current experience in the real world will teach you what the modern eavesdropping methods are, and how to detect them, and how to counter them.

In short, it's a practical course.

Our motto, "Performance, Not Showmanship" describes the way we work, and the way we'll train you to work.

WHY THE COURSE IS DESIGNED THIS WAY

We want our graduates to be prepared to perform modern countermeasures on their own. One of the saddest stories that we ever heard in this regard involved a public utility company that had sent a member of the security department to a training course put on by the people who had sold his employer the equipment. He came back from the course, locked the equipment in a closet, and to this day refuses to even talk about the subject.

In that case the company had made a wise decision, namely to do their own countermeasures work in house, but could not accomplish it because the man who was trained had no confidence in what he was supposed to be doing.

That's better, though, than the guy who doesn't know what he's doing, but pretends that he does.

We don't want even a single graduate to fall into either category.

OUR PLEDGE

We will spare no effort to see that each person who takes our training is capable of performing CTSC properly. That means that you may return for additional training if you are not confident that you can properly do the job. We are so certain that we can train you, there is no tuition charge after the first three weeks of training, only a \$25 registration fee per week.

You may take as many weeks of training as you need to become competent and confident.

CTSC, WHAT IS IT?

CTSC, Corporate Technical Surveillance Countermeasures, is a name that was crafted carefully; it conveys several messages.

1. First and foremost, the use of the word "corporate" signifies that we specialize in corporate work. Yes, our techniques and procedures are valid in a domestic situation, but we shy away from working in that arena.

2. "Corporate" also implies that we are not looking for the government threat; we're looking for the corporate threat.

3. "Technical Surveillance Countermeasures" means that we are covering all technical surveillance (as in government TSCM), not just audio countermeasures (ACM). We are involved with countering all types of surveillance -- audio, video, telephone, facsimile, computer hacker, you name it.

4. Finally, the fact that we have coined a new term, CTSC, indicates that we have created new techniques and procedures. We do not perform the same tests that have been standard for fifty years. Modern electronic communications systems and capabilities are changing at an unbelievable rate, and the countermeasures procedures and techniques that we use and teach change constantly to match the changing threat.

COURSE CONTENT

The most important characteristics of the CTSC professional. Basic theory. The immutable engineering principle: TANSTAAFL. Communications systems in the modern world: telephone, fax, data, etc. Modern telephone company services and their vulnerabilities: DISA, CLASS, ESS, CCISS, CNA, ANI, SMDR, DNR, REMOBS, etc. RF and light transmission. RF spectrum. Modulation: FM, AM, SSB, hoppers, subcarriers, exotic types, etc.

CTSC, what it is; threat assessment (conventional and exotic); developing a plan for a specific CTSC service; equipment needed; how to conduct CTSC; use of standard instruments; checklists; forms; how to report to your client, orally and in writing. Additional issues: nuances; business aspects. Thorough analysis of all equipment that is offered, the good stuff, the junk, and the hype. Rain dances, magic wands, and other frauds.

Practical, hands-on work with CTSC equipment: telephone analyzers, RF bug detectors (spectrum analyzers and other modern equipment), wire tracers, low frequency receivers, etc. Practical exercises in physical search. Demonstrations of various bugging systems.

CLASS SIZE; TEAMWORK

Class size is limited to allow for maximum personal attention to each student's needs.

Teamwork will be emphasized. Classroom problems will normally be worked by teams in order to allow those students who are better at math to help others who may have different backgrounds. Such cooperative effort will be encouraged throughout the training.

INSTRUCTORS

The principal instructor is James A. Ross [BS, MS (EE)]. He has experience in teaching technician level and college level electronics and many years of practical experience working in corporate technical surveillance countermeasures. (Resume available on request.) He will be assisted by others who work in this field who have proper qualifications.

TEXTS

Because modern surveillance and countersurveillance techniques and equipment are so new, there are no texts yet available. For that reason the course will use alternative material such as the seminar notebook created by the chief instructor, and excerpts from his newsletters.

FLEXIBILITY

One key attribute of our program is flexibility. It is not like the training you get in the military. In fact, we don't even label the courses "basic", "advanced", "super-advanced", or anything else. You get individual attention; you're not locked into the group's pace. (Remember, a convoy travels at the speed of its slowest member.)

For instance, you may take the first week of training during the first week of any scheduled two-week session and the second or third week during the first or second week of any two-week session. You may take all of your training in successive sessions, or you may take one week this year, another next year, and the third the following year. It's up to you.

Also, you will have the opportunity to train on many different types of equipment. If you wish, you may bring in your own equipment, and learn how to get the most out of it.

Another unique feature of our training program is that the tuition decreases as you progress. As a matter of fact, after the first three weeks, you only have to pay a nominal registration fee, and no tuition at all.

ADMINISTRATIVE DETAILS

Training is conducted in the Ross Engineering facility, designed specifically for TSCM training, in Sterling, Virginia (adjacent to Washington's Dulles International Airport).

The work day will be eight hours with portions devoted to classroom time, study time, and lab/shop time. Also, informal seminars will be used to provide real-world information.

Included are all course materials and a certificate of completion (to every student who successfully completes the course). All instrumentation will be provided for your use while in training, and you may also bring items of your own. Transportation, meals and lodging are your responsibility.

Tuition (cash or credit card): first week: \$750; second week: \$375; third week: \$225; fourth and later weeks: no tuition, only a \$25 registration fee.