

NATIONAL SECURITY AGENCY  
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# CRYPTOLOG

## NOVEMBER 1983



P.L. 86-36

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"Wayne:

"While I was perusing the Black Books for quotable oldies I realized that CRYPTOLOG comes from a long tradition. In the 1920s the Signal Corps Bulletin published articles on cryptanalysis along with other subjects related to communications. Before that, as I recall, around 1911 I think it was, Maubourgne published the solution to the PLAYFAIR cipher in a periodical of the War College (I think...don't remember exactly).

"You might want to write an editorial on the (disrupted) continuity of documentation, exchange of ideas, etc. Before CRYPTOLOG was KEYWORD, and I dimly recall something before that, including the underground press.

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"I think that there's something deep inside every professional that urges towards the passing on of the torch, to chat in writing with others of similar ilk, to want to find out what everyone else is doing, and how others are solving the same problems.

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Well said, Virginia.

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# STATIC MAGIC

OR  
OR

## The Wonderful World of TEMPEST

One Man's Static Is  
Another Man's Treasure!

by Thomas M. Bonahue, U44



(U) "DID YOU SEE WHAT I SAW?"

(U) The COMSEC engineer almost had his nose pressed against the screen of the oscilloscope.

(U) How the devil did I know if I saw what he saw if I didn't know what he saw? Besides, it was hot and I had a headache.

(U) Staring at RF noise being displayed on an oscilloscope is like looking into a blizzard on New Year's Eve. You start to imagine things. It had been a long day. Suddenly two words appeared on the screen: TERMINAL READY. I blinked; they were gone.

(U) The engineer twisted the dials on the electronic intercept receiver. A couple of blurred words appeared. A few more twists and they became clear. "TOP SECRET" danced at the top of the screen.

(U) We smiled at each other. I gave the engineer a pat on the the back. My headache was gone. We had done our thing. There was tension in the air--like being caught with your hand in the cookie jar. But it was our cookie jar.

(U) The oscilloscope we were looking at was displaying classified information radiating from distant terminals in NSA Operations Building Number 1. We were sitting in a Winnebago camper van in the visitors' parking lot near Gate 2.

~~(C)~~ During the following two days we were able to intercept classified text from 84 terminals in A Group and 4 in B Group. The terminals were immediately removed from service.

(U) Another time, another place, and more stolen cookies.

~~(C)~~ A secretary in the R Organization at FANX II was typing a classified memo that dealt with TEMPEST radiation. Her curiosity was aroused. The engineers in the lab were complaining about her new typewriter causing static in their equipment. Could this static be a form of the "compromising radiation" she was reading about; and could it be picked up by the cars and vans parked less than 50 feet away in the NSA parking lot?

(U) Later she asked her boss, "Am I radiating?" Always the gentleman, he replied, "You certainly are, Nancy. Is that a new dress?"

(U) Fortunately for the Agency, she explained that it wasn't her dress she was worried about but her typewriter. The typewriter she was using was being placed throughout the Agency because tests had shown it had very good TEMPEST characteristics. What had not been foreseen was that an enterprising salesman, to show his company's appreciation for the new contract, was upgrading the typewriters at no cost to, and without the knowledge of, NSA management. He was installing a device that let the typist see each line as it was being typed on an electronic display. Unfortunately, it also let someone 200 yards away with TEMPEST intercept equipment see each line as it was being typed.

(U) These are just two examples of TEMPEST problems at NSA. There have been others.

(U) There is no special meaning in the word "TEMPEST." It was simply picked from a cover-name list by an NSA engineer in the early 1950s. However, TEMPEST has now become a generic word used throughout the US Government and industry to describe the unintentional emanation of classified information from an equipment. It is used as a noun, verb, or adjective; sometimes in the same sentence. For

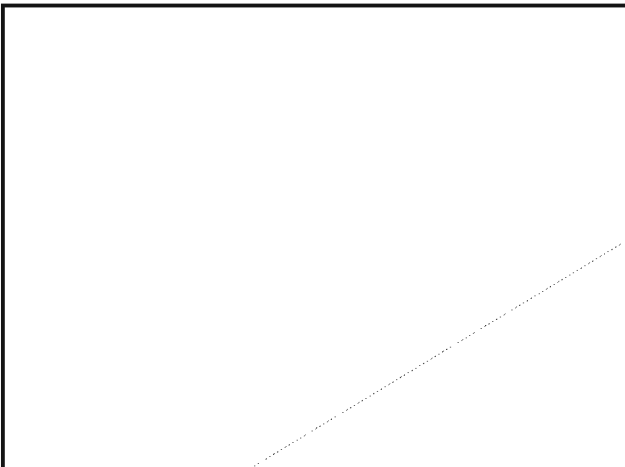
example, "TEMPEST requires that we TEMPEST equipment to suppress TEMPEST radiation."

(U) NSA, because of the variety of equipment and sensitivity of its work, has always worried about possible TEMPEST leaks. However, it wasn't until the late 1970s that a workable plan was initiated to categorize equipment into groups by their TEMPEST characteristics. Until then there was only one standard for describing TEMPEST characteristics: NACSEM 5100.

(U) This specification, NACSEM (National ComSec/Emsec Memorandum) 5100, stated the laboratory tests and radiation limits an equipment must meet to be TEMPEST approved. It either did or did not meet it. The intent of the specification was to prevent someone in one room from "reading" the emanations in an adjacent room.

(U) Designing and building equipment to meet the strict requirements of NACSEM 5100 is expensive. It has been estimated that the cost of modifying all the typewriters, computers, etc., used by NSA to process classified information to meet NACSEM 5100 would probably exceed the entire defense budget. Yet Milton Zaslow, a former Deputy Director for Telecommunications, was fond of saying, "TEMPEST is a price we must pay to stay in business." To overcome the cost versus security problem, COMSEC developed the "zone" concept.

(U) The compromising radiation levels of off-the-shelf equipment are measured and the equipment is assigned a TEMPEST zone rating. A "Zone 1" rating means it has a low radiation profile, while a "Zone 5" rating is given to those with high levels of compromising radiation.



(U) There are two ways of providing TEMPEST protection. The equipment can be designed so that it doesn't radiate in the first place, or

measures can be taken to insure that any radiation can't be intercepted. The latter can be accomplished by using the inherent attenuation provided by the location of the equipment, such as our building zone concept, or by building a special room to keep the radiation from getting out. Such a room is called a shielded enclosure or, for the old-timers, a "screenroom." It's the same idea as Maxwell Smart's "Cone Of Silence."



(U) Carrying the idea of the shielded enclosure to the extreme, why not shield an entire building? Then you could place equipment without worrying about TEMPEST radiation.

(U) Well, if you have been watching Operations Building 2A going up, you have been witnessing the building of NSA's own "Cone Of Silence." That copper material that goes under the glass facing is for TEMPEST protection. This building will be by far the largest shielded enclosure ever built. The US Intelligence Community is watching this project with much interest. If it works as well as we think it will, full-TEMPEST buildings may well be the thing of the future. There are also plans to TEMPEST-shield the Headquarters and Operations Building 1. The savings in convenience and dollars should be considerable.

(U) A few additional words on TEMPEST radiation. There have been questions about the TEMPEST radiation that's going to be "trapped" inside the buildings by the shielding. "Isn't radiation bad for you?" Well, let me put your mind at ease. TEMPEST radiation is the same type of energy, in the same frequency range, as that used to broadcast radio and television signals, but it is much weaker.

(U) The radiation present in your living room coming from television Channel 2 is many times greater than the radiation from TEMPEST signals. An hour at NSA with TEMPEST will be no more dangerous, but probably a lot less exciting, than an hour at home watching the tempestuous activities of "The A-Team."

# TEMPEST

## FOR EVERY OFFICE

P.L. 86-36

by



S64

**J**ohn Doe arrives at work in the morning, powers up his computer workstation, and relaxes with a cup of coffee while he reads his morning mail on the CRT screen. Across the hall, Sue Smith finishes editing her project report before routing it to the printer at the front of the room. Meanwhile, Kathy's secretary has just completed a large batch of correspondence that used to take twice as long to prepare.

These are just a few of the "miracles" that we all look forward to in the paperless office of the future. High-technology firms have been gearing up to provide the computers, printers, workstations, and other peripherals for the transition. Experts predict that by using our computer know-how to solve information management problems, we can save millions of dollars in all areas of cost in the office.

Great idea! But what about the special problems that office automation presents to the US Government? One of the problems, of course, is security. To narrow down the scope of this article, let's look at just one part of the security problem: TEMPEST (compromising emanations).

At some point a decision was made that John Doe's workstation would have to meet the government's TEMPEST requirements. The decision may have been made by John Doe himself, by his security Chief, or by the "local TEMPEST authority." A requisition was made for a workstation and some few months later, John Doe sits at his terminal reading and writing with the greatest of ease! The process of procuring a TEMPEST-suppressed terminal has become this simple only in the last few years.

In 1976, on behalf of the National Communications Security Committee (NCSC), the National Security Agency created the Industrial TEMPEST Program (ITP). Until that time, the only way the government could obtain TEMPEST-suppressed equipment was to let a contract for the development of each specific equipment needed. Each contractor was given the classified information necessary to design and test its product. This was an expensive process. As the government's need for information processing equipment grew, the impact of the high cost of these contracts also grew.

The ITP was formed to provide an alternative to this steadily increasing cost of TEMPEST protection. Its purpose is to satisfy the government's need for TEMPEST-suppressed equipment by involving industry in the development of TEMPEST-suppressed products that can be purchased "off the shelf." This is a unique charter for a government program, and the ITP is a unique creation.

The program is based on a no-cost contract between the government and qualified US companies that voluntarily develop, test, and produce TEMPEST-suppressed equipment using their funds rather than government funds. To join the ITP, a company must satisfy a set of qualifications pertaining to US ownership and security clearances and make a clear commitment to develop TEMPEST-suppressed equipment. Additionally, the company's activities must be of obvious benefit to the government. A company remains in the program by working toward the goal of developing TEMPEST-suppressed information processing equipment.

The no-cost contract (known as the ITP Memorandum of Understanding) calls for certain commitments for both government and industry to contribute to the development process.

The government provides classified specifications, technical assistance, technical training in the form of Air Force TEMPEST courses, and the government market for TEMPEST-suppressed equipment. Industry provides those resources needed to put TEMPEST onto the production line. These include development expertise, TEMPEST test capability, R&D expertise and funding, and the manufacturing capability.

The success of the government-industry partnership is undisputed. Since 1976, ITP membership has grown from 9 to 95 companies. The number of government-accredited TEMPEST-suppressed devices has also multiplied. In 1979, when the first list of accredited items, the Preferred Products List (PPL), was published, it listed 11 different products. Today the PPL includes 135 devices, such as word processors, printers, communications terminals, and CRT display units. There are other benefits from this arrangement as well. Advantages to the government include a larger selection of TEMPEST-suppressed products at lower prices; an excellent channel of communication with industry; and firm control over the dissemination of TEMPEST information. Companies in the program gain the opportunity to compete effectively in the TEMPEST marketplace.

Close communications between ITP members and the government has been an important factor in the success of the ITP. As the relationship between ITP members and the government continues to grow and strengthen, we expect to see even better results from the program. Our efforts will be devoted to better communications with ITP members, smoother operation of the program, and even cheaper TEMPEST-suppressed products for the government.

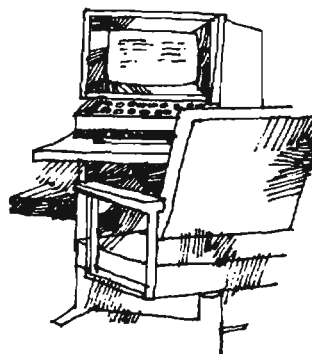
The ultimate goal is for ITP companies to introduce their TEMPEST-suppressed version of a product at the same time that the commercial version hits the marketplace. This will give John Doe and friends the opportunity of obtaining the latest and greatest information processing equipment with TEMPEST protection at the same time that the rest of the world is discovering the same state of the art product in a commercial configuration.



EO 1.4.(d)  
P.L. 86-36

Dear Sir

(S-660) I was particularly interested to read your CRYPTOLOG May 1983 article on the "Computerizing of TA." The analysis of what the TA analyst looks for and needs from ADP and the conclusion in favour of PINSETTER-type software support is remarkably consistent with our own findings in J Division, following a detailed systems analysis exercise conducted throughout 1982. As a result of this we are proposing for J Division a solution, nicknamed [redacted] which will be based on UNIX-PINSETTER work at NSA.



# I Remember JFK



P.L. 86-36

by "HGR"

**N**ow that November 1983 has rolled around, the media can be expected to make a lot of fuss over the fact that it has been 20 years since (U) President John F. Kennedy was assassinated in Dallas, Texas. The commentators and journalists have been making a semi-major event out of the anniversary ("Just like on Pearl Harbor Day, everybody remembers where they were on November 22, 1963, when they first heard the news" and similar inanities), but anniversaries divisible by 5 or 10 always produce a greater outpouring of such deathless prose. So this 20th anniversary of President Kennedy's death will no doubt engender exceptional numbers of articles, radio and TV specials, memoirs, even a book or two, and countless numbers of interviews asking that earth-shaking question "Where were you on that day?" Not that I think that all the to-do is really necessary but Cryptolog and I might as well get on the bandwagon.

~~(FOUO)~~ To get the burning question out of the way, in case anybody cares where I was on Friday, 22 November 1963, let the record show that I was at work somewhere on the second floor of the NSA Building. (At that time there was only one, the 3-story edifice now known as the Operations Building.) Life was going on as usual in one of those offices that always seemed to be running at a fever pitch -- "Every day is flap day here!" was the way one person put it--and since our mission did not include keeping track of the president when he was traveling around CONUS, nobody gave much thought to the fact that JFK was going to Dallas that day. But shortly after lunch Al Graves' wife called him and gave him the news.

(U) "HGR" is one of several pseudonyms used by [redacted] P16, who remembered Mabel Babel in our August issue.

~~(FOUO)~~ As luck would have it, the outside phone was on my desk so I got the full impact of his loud "Wha-a-a-t!?" She repeated the news and he uttered a short phrase that I wouldn't dare repeat here and hung up the receiver without even saying "Thanks" or "Bye!" With a rather perplexed look on his face he then proclaimed to nobody in particular "The President has just been shot!"

~~(FOUO)~~ There was a series of thuds as pencils were dropped by a number of surprised analysts. There were also excited cries of "What did you say?" and "Are you sure?" There was also an occasional "How did you find out?" from SIGINT analysts used to checking source validities. Somebody said, "I won't believe it until I hear it over the Agency loudspeaker system," but to the best of my recollection, such an announcement was not made. For the rest of the day, though, various individuals in the office would call relatives at home to see if there was any later news. A few individuals ran down to the parking lots to listen to news on their car radios. At go-home time President Kennedy was still in the hospital, but the sad news came later.

(U) The funeral took place the following Monday and all government employees got the day off, but for several days after their return to work, the major topic of conversation-

--at least in the office where I was then working--was the lack of any official announcement over the loudspeaker system, with things like "You'd think a communications agency could at least communicate something like that to its employees" being said more times than I care to recall. (For the record, during the next year or so, the Agency did react to the criticism by announcing space shots, presidential signing of Federal pay-raise legislation, etc.)

(FOUO) However, there are a few other things about President Kennedy's term that I remember at least as well as his last day. Considering that his term of office included the Bay of Pigs invasion and the Cuban Missile Crisis, events that caused lots of extra work for this Agency and necessitated my working many 12-hour shifts, 6-day weeks (and there were some others even more patriotic who put in 7-day weeks), weekends when I'd work noon to midnight on Sunday and then go home only to be back in the office at 7:30 Monday, I guarantee that it'll be a long time before I forget the Kennedy presidency!

(FOUO) There were probably some employees who have put in 24-hour days and although I tried to do it on one occasion, I was thwarted. I could probably go look up the date, but I don't feel like it. However, during the October 1962 Missile Crisis our section had gone on 12-hour shifts and I was on from midnight to noon, but at midday I was in the midst of a long wrap-up report, so I stuck around a few hours longer to finish it, and then someone asked me for a little help on something he was doing, and then something else happened, and then something else, and something else, so I stayed a little longer. At this point, I figured that since it was almost dinner time, I might as well wait a bit longer and eat in the cafeteria. While eating supper, the idea hit me that since I'd been here for over 18 hours, I might as well try for 24, but Carrie Berry, one of my supervisors, dropped back in the evening to see how things were going. She recalled having seen me that morning--I have one of those faces that it's hard to forget!--and gently suggested that I should hit the road. However, we had heard that the president was going to be making a speech at 8:00 o'clock so I urged her to let me at least stick around to hear it on the portable radio that one of our co-workers had smuggled in. I planned to find some other excuse at the end of the speech, but Miss Berry anticipated me. Within 10 seconds of the the president's last word (while the radio announcer was still saying "You have been listening to President Kennedy speaking live from the White House"), she told me in a very firm tone of voice (that she apparently hadn't to use with me previously)

"OK, the speech is over. Now get home!" so I left after only slightly more than 20 hours on the job that day.

(U) But another 1-o-o-o-o-o-ong day in connection with John Kennedy that I'll certainly remember is the day of his inauguration in 1961. The announcement had been made that only Federal employees in the Washington area would be given the day off; subsequently we heard that Fort Meade was not considered part of the DC area. It should be noted that for previous inaugurations the Agency had been housed at Arlington Hall, which was in the Washington area, so I remembered having gotten the day off when Eisenhower had been sworn in. Accordingly, I was annoyed at the thought that we wouldn't be getting the day off for the Kennedy inauguration. Recalling the fact that the Agency had given its employees a few days off the previous winter because of severe snowstorms, a few days before the ceremony, I voiced a silent prayer asking for just enough snow on the 19th so that I'd be able to stay home on the 20th and watch JFK take his oath of office.

(U) Boy, did my prayer get answered! It snowed so heavily on the 19th that the Agency powers that be decreed an early dismissal for all employees about 2:00 p.m. Letting everybody out at the same time on a good day would create a horrible enough traffic jam, but turning the entire crew out at the same time on a snowy day really compounded confusion. It took my carpool over an hour just to get off the NSA parking lot--by comparison, on normal days it took me about 45 minutes to get all the way home to Southeast Washington--and almost another hour just to get over to the Baltimore-Washington Parkway. The pace on the Parkway was mighty slow and the roads in the District of Columbia were clogged with snow and stalled cars so progress was difficult. Fortunately, I had just filled my gas tank the day before or else I might have joined them. Every time we were stopped by a red light one of the carpool members and I would hop out and brush the snow off the back windshield. Shortly after 10 p.m. I staggered into my apartment, cold and weary. Yes, I got to spend the day at home and was able to watch the swearing-in, but I've been afraid to do any praying about the weather ever since.

(U) John Kennedy's inauguration address included the oft-quoted line, "Ask not what your country can do for you; ask what you can do for your country." That speech and that line are the examples of Kennedy oratory that most people remember best, but the linguist in me has even more vivid memories of another JFK speech, the one he made at the Berlin Wall in



the Spring of 1963. The president was not particularly known for his language abilities, other than his penchant for salty language. (Oh, could that man cuss!) The linguist in the family was his wife Jacqueline, who had grown up with a French governess and was bilingual. (She studied Spanish prior to a presidential trip to South America and acquitted herself admirably in conversations with Latin American dignitaries; that fact, the way she charmed Charles de Gaulle on a presidential mission to Europe, and her remark about "mink underwear" are just about all I remember about her years in the White House.) JFK made one foray into the field of foreign languages, the so-called "Ich bin ein Berliner" speech.



(U) I've listened to recordings of that speech many, many times and the only way that I know that his German words were supposed to be "Ich bin ein Berliner" are because that's the only thing that makes sense in context; it sounds like "Ik benign b'layeh" with the "lay" drawn out for an extra syllable or two. He spoke about how in an earlier times one of the proudest statements a free person could make was "Civis romanum sum" (I am a Roman citizen)--and I must admit that he pronounced the Latin fairly well--and that since World War II "all free men, wherever they live, are citizens of Berlin, and therefore, as a free man, I take pride in the words: Ik benign b'layeh!"

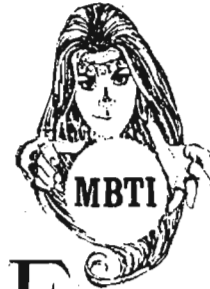
(U) But just before that paragraph he made another attempt to show off a little language knowledge--and truly, a little language knowledge is a dangerous thing. He pointed out that there were people who didn't understand the issue between the free world and Communism; "Let them come to Berlin!" he added. There were others, he said, who considered Communism to be the wave of the future; "Let them come to Berlin!" Twice more he referred to people making simplistic statements made about working with the Communists. About these individuals too he said "Let them come to Berlin!" However, the last time he decided to say it in German, so he said "Lassen sie nach Berlin kommen!" (except that he pronounced it something like "Laaa-s'n zee nack Berlin common!"). The only trouble was that the three previous times he had uttered the magic words the interpreter had rendered them (more correctly) as "Sie soll'n nach Berlin kommen!"

(U) Obviously what had happened was that Kennedy had asked someone "How do you say 'Let them come to Berlin!' in German?" and that person (not necessarily a competent German linguist) had told him "Lassen sie nach Berlin kommen!" which can be translated that way if you mean "Allow them to come" rather than the modal idea of "they should [or "ought to"] come" which the President had in mind. Or it's possible that JFK had studied German in high school or college and had vague recollections of what he had learned. I have used this example many, many times to remind linguists to beware when some friend comes up to them and asks "How do you say so-&-so in Esperanto?" Oh, it sounds very nice to be able to rattle off an answer right away, but a cautious linguist will ask a few background questions, trying to find out the context, the precise shade of meaning, the people who will see or hear the words, etc., etc. If Kennedy's informant had asked to see the whole paragraph, he or she might have deduced that "Sie soll'n, etc." would have been better than "Lassen sie, etc."

(U) The story has a happy linguistic ending, though. After Kennedy had said "Laaa-s'n zee nack Berlin common!" he listened to hear what the interpreter was saying--he obviously hadn't thought to do so the first three times!--and realized that the interpreter had said something altogether different. In a quick flash of that now-famous Kennedy wit, he then said "I would like to thank the interpreter for translating my German into German!" Let the record show that the interpreter was right on the ball though, because he rendered that remark as something like "Ich will den Dolmetscher danken fuer die Uebersetzung meines Deutsches auf besseres Deutsch" (... for translating my German into better German).

(U) Let others remember John F. Kennedy for his civil rights stands, for his meetings with Khrushchev, for playing touch football, or for the fact that he left the r off the end of "vigor" ("vigah") but pronounced one on the end of "Cuba" ("Cuber"?), for telling us not ask what our country could do for us, for appointing his brother to the cabinet, or for having a pretty wife. Let others remember JFK in terms of where they were or what they were doing when they learned he'd been assassinated. I may think about those things but, in addition, I assure you that I'll remember JFK for a couple of the lo-o-o--o--o--o--ongest days in my life and for those language-related incidents at the Berlin wall.

# THE MANAGEMENT B T I TOOL OF THE FUTURE (U)



by  P13

P.L. 86-36

**I**f you have never heard of the "Myers-Briggs Type Indicator" (MBTI for short), you will probably be in the minority over the next few years. This psychometric questionnaire seems likely to become a new fad as a management tool; it has been exploited in a big way by the Japanese, who find it highly valuable in matching people to jobs. For this reason alone, US industries and Federal Agencies will probably use it increasingly in the near future. It is easy to administer and easy to score, and it provides an astonishing degree of useful insight into personality as it affects cooperation with others on team projects, the likelihood of success at various types of jobs, and matching up workers with the different "styles" and philosophies of different organizations or companies.

The MBTI was developed by two women, Isabel Myers and her mother Katherine C. Briggs, during the 1950s, entirely outside the mainstream of psychology. A manual was published in 1962 by the Educational Testing Service, and Myers and Briggs accumulated a large body of data by testing groups of people in a wide range of occupations and populations. Interestingly enough, in view of its current and growing popularity, this instrument remained in obscurity well outside of the establishment of personality and vocational testing for many years. Its developers were not academic psychologists; they didn't "belong to the club." In fact, the "response from organized psychology was certainly cool if not hostile" (to quote the Publisher's Foreword of "Gifts Differing." [2]). The MBTI has only begun to come into its own in the last decade, perhaps even the last five years, as more and more organizations and individuals discover its amazing usefulness.

What is the "MBTI"? It is a questionnaire which can be used to classify people by "type" along four major dimensions. It is based on Carl Jung's theory of personality (as described in his Psychological Types, first published in English in 1923). As might be expected from that remarkable psychological innovator, Jung's personality theory is unique and creative; its flavor and approach to assessing personality carves out a whole new conceptual world, totally different from other theories and assessment schemes. The MBTI questionnaire contains a list of questions eliciting the testee's preferences among various kinds of activities. It can be scored manually in seconds by a simple series of overlays with windows singling out sets of answers that pertain to each of the four main variables being measured. It provides a personality type classification in the form of four letters, for example "ISTJ", "ENFP", or "INTJ". Each of the four places in the classification code represents a choice between two possible preferences: I or E, S or N, T or F, and P or J. The letters stand for terms which seem misleading at first reading; you have to read the descriptions of the personality types, choose all four letters in various combinations, and practice applying them to friends and acquaintances, before you get a good "feel" for what they imply. Once you get the knack, however, I guarantee that you will find them astonishingly enlightening and helpful.

Here is a brief introduction to the type theory, quoted from the Myers book Gifts Differing:

"It is fashionable to say that the individual is unique. Each is a product of his or her own heredity and environment and, therefore, is different from everyone else. From a practical standpoint, however, the doctrine of

uniqueness is not useful without an exhaustive case study of every person to be educated or counseled or understood. Yet we cannot safely assume that other people's minds work on the same principles as our own. All too often, others with whom we come in contact do not reason as we reason, or do not value the things we value, or are not interested in what interests us.

"The merit of the theory presented here is that it enables us to expect specific personality differences in particular people and to cope with the people and the differences in a constructive way. Briefly, the theory is that much seemingly chance variation in human behavior is not due to chance; it is in fact the logical result of a few basic, observable differences in mental functioning.

"These basic differences concern the way people PREFER to use their minds, specifically the way they perceive and the way they make judgements. PERCEIVING is here understood to include the process of becoming aware of things, people, occurrences, and ideas. JUDGING includes the processes of coming to conclusions about what has been perceived. Together, perception and judgement, which make up a large portion of people's total mental activity, govern much of their outer behavior, because perception--by definition--determines what people see in a situation and their judgement determines what they decide to do about it. Thus, it is reasonable that basic differences in perception or judgement should result in corresponding differences in behavior." [pp. 1-2]

Here, in a very brief overview, is a summary of the meanings of different choices for the four letters of the type code or "indicator":

First letter: E (Extroversion) or I (Introversion). The introvert is a person whose main interest lies in his own "inner" world of ideas and concepts. (The term "introvert" has often been distorted or misused to mean a person who is antisocial, shy, reclusive, even neurotic; we must discard that pejorative abuse of the term in considering Jung's theory as used in the MBTI.) The extrovert is a person who directs his interest outward into the external world of people and things. A good criterion in applying this choice is to ask yourself: "Do I frequently feel tired and people-weary after a noisy party or a long day spent interacting with people?" If you answer "yes," you are probably an introvert. If you feel pepped up, raring to go on to another party or stay out all night, you're probably an extrovert. The introvert may have thoroughly enjoyed the interaction; he isn't a misanthrope. He just needs frequent "alone

time" and quiet space to catch up with his own inner life and balance the partying and gadding about. The extrovert, in contrast, hates to be stuck by himself in a quiet corner. He gets bored, restless, or sleepy there and soon finds an excuse to get back out into the action. That doesn't mean, however, that he is necessarily a pushy, noisy, insensitive boor (a frequent pejorative implication of the term "extrovert" in popular parlance).

Second letter: N (Intuition) or S (Sensing). This choice defines two sharply contrasting ways of perceiving preferred by different people. Sensing people enjoy exploring the outside world through their eyes, ears, fingers, and noses. They prefer to get their data from the environment and through their senses. Intuitives, on the other hand, prefer to consult their own mental world of associations, symbols, hunches, and ideas to generate data. Sensing people are down-to-earth, objective, pragmatic; intuitives tend to be more creative and theoretical. Sensing people are interested in the past or the here and now; intuitives prefer future possibilities and leaps into the unknown. Note that a person may be an extrovert (preferring to act externally in a dynamic outer world) and also an intuitive (preferring conceptual or theoretical data from his own mind). An introvert may also be a sensing person: objective, matter-of-fact, and practical.

Third letter: T (Thinking) or F (Feeling). This dimension pertains to two contrasting ways of coming to conclusions preferred by different people. Thinking people prefer to use logic, reasoning systematically from A to B to C. Feeling people care more about values: the consequences or meanings of an act or object, and its effects on other persons. Thinking people are more interested in data about things or ideas; feeling people prefer data about human beings and human relationships. Again, we have to guard against a hasty assumption that to be a "feeling" person in this sense means to be illogical or emotional, or that "thinking" necessarily means intelligent. The words are being used here in a very special way, with no inherently good or bad implications.

Fourth letter: P (Perception) or J (Judgement). A final preference that enters into the identification of type is the choice between a perceptive or a judging attitude in dealing with the world. Perceptive people like to continue gathering data and keep their minds open as long as possible, while judging people want things settled and a decision made. Perceptives like to ride with the stream and dynamically follow it wherever it goes; they don't like things to be cut and dried. Judging people want order,

predictability, and seeing things in their proper places; they don't like things to be up in the air or undecided.

These four pairs of choices result in 16 possible sets of four letters, each having its own strengths and weaknesses in the context of certain kinds of jobs. Marriages are apt to last longer and be happier if the couple are compatible in type (i.e., with at least two letters the same and preferably three). If I am an INTJ, and I work for a boss who is an ESFP, we are both going to have some problems getting along (especially if we are sitting at neighboring desks in the same small room!) Many schoolteachers are "SJs"; they have a hard time understanding and coping with the sizable number of percepts in their classrooms; they want order and common sense while the little "Ps" want to go with the flow and run about gathering data. And so it goes, on and on, through far more examples than I can mention here. I strongly urge anyone interested in human factors to read the two books listed as references at the end of this article and, if possible, get himself and his family "typed." You are likely to find the results amusing and interesting at the very least, and you may well also obtain some substantially useful self-knowledge.

At least one Management Course at the Agency covers the MBTI and the various implications of type in our work environments. In fact, I learned of the MBTI through a coworker who took this course and was greatly impressed by the insights he gained from it. I then took a one-day seminar from Otto Kroeger and Associates, the contractor who taught the Agency Management Course. (See the last reference at the end of this article for the full details.) The questionnaire was sent to me in the mail in advance; I returned my answers by mail, and was assigned a type by the instructors before the day of the seminar. There were about ten attendees, all of whom had been assigned a type in advance by the instructors. During the morning, we were told the history and general theory of the type indicator and the types. We also participated in some very enlightening and amusing little exercises designed to illustrate some of the implications of the types in a very vivid manner, having all the more impact since we did not yet know our types. Since the instructors knew our types, they could assign us to subgroups whose members all shared certain important letters in common. In the afternoon, after we had gone through several of these little games, we were told what our types were.

I will never forget the impact of one exercise, where we were split into three groups and told to work separately to come up with a

definition of "leadership." My subgroup had four members. We sat right down and got busy, finishing our task long before the others. I was amazed at the feeling of satisfaction I had: everything went so smoothly with these people. We were all so sensible. We all were on the same wavelength, and it was a joy to work on our little team. Our definition of "leadership" included words like "practical," "objective," and "responsible." And no wonder! We all turned out to be "SJs": sensing judging types. The "NTs" (intuitive thinkers) argued long after their time was up, and their definition of "leadership" featured "intelligent" and "creative." The "NFs" (intuitive feelers) sat on the floor in a huddle; they, too, talked on past the time limit. Their definition focused on ability to communicate and get along with people. It was a revelation to me how uniquely easy and pleasant a task could be in a team of people intentionally matched by type. What benefits might we not reap in many walks of life if we could learn to make conscious and intelligent use of this tool? Perhaps someday children will learn the characteristics of the different types in school and be taught how to make the most of their own and others' predictable strengths and weaknesses. I am still amazed at how completely my own behavior, preferences, and interactions with others are described and predicted by this theory of personality. In fact, I am still discovering new insights based on my own "type" classification. Try it. You can't lose, and you might gain a lot of valuable self-knowledge.

#### References

- [1] Myers, I.B., Introduction to Type, 2nd edition, Center for Applications of Psychological Type, Gainesville, FL, 1976
- [2] Myers, I.B. and P.B., Gifts Differing, Consulting Psychologists Press, Inc., Palo Alto, CA, 1980
- [3] Otto Kroeger Associates, 1401 South Barton St., Suite 242, Arlington, VA 22204, (703) 892-4566





**C**HRIS HAS TO GO RUN. This sentence is very innocent-looking. Although it may not be entirely correct grammatically, it is made up of words that form a meaningful sentence and has another claim to fame. All the words in it are acronyms. According to the Acronyms, Initialisms and Abbreviations Dictionary, 8th edition, 1983-84, edited by Ellen T. Crowley:

- [ ] CHRIS = Cancer Hazards Ranking and Information System;
- [ ] HAS = High Angle Strafe;
- [ ] TO = Tuesdays Only;
- [ ] GO = General Orders; and
- [ ] RUN = Reduction Unlimited.

(U) Acronyms, unlike ordinary abbreviations, consist of letters (usually initial letters of words, although sometimes two or more letters from one word will be used) that are strung together so as to form meaningful--or, at least, pronounceable--words or names. "Acronymia," as I call the practice, is sweeping America; it is especially prevalent in the military. Many military projects take on names that, most often, have some relation-

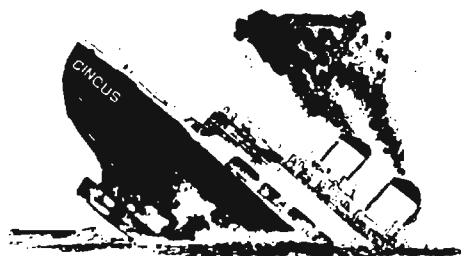
ship to the nature of the project. One instance of this, for example, is the Navy term SWAM, an acronym meaning "Shallow Water Attack craft, Medium."

(U) The words RADAR and LASER both started out as acronyms. ("Radar" stands for "radio detection and ranging" while "laser" means "light amplification by stimulated emission of radiation.") These words are used so often in normal conversation that they have both been accepted and duly listed in dictionaries.

(U) Although the military creates the lion's share of acronyms, they aren't the only users. There are plenty of acronyms employed in the civilian community too. Some of these actually fit the cause the organization represents. For example, WIN (for Whip Inflation Now) was a popular (if not infamous) button worn briefly during Gerald Ford's administration. (The button may still be seen in the halls of the National Security Agency, being worn by members of Women in NSA.) And what about the organization NOW (the National Organization for Women). The name of the organization drives home the point of immediacy. (At many of their rallies, you'll hear the shout "What do we want? ERA! When do we want it? NOW!") MADD (Mothers Against Drunk Drivers) shows the anger of the members.

(U) Some organizations choose acronyms that point toward the danger of whatever it is that they're trying to combat. Two examples that come to mind are GASP, the Group Against Smog and Pollution and WAR (Women Against Rape). And let's not forget SHHH, Self-Help for Hard-of-Hearing People.

(U) Comically, some acronyms can actually be confused with real words that may not even come close to the meaning intended. For example, many people refer to a "Short Takeoff and Landing" aircraft as a STOL, pronouncing the acronym an awful lot like the word "stall," which we all know is a word used to describe the condition when an airfoil is incapable of producing lift, causing the aircraft to dive. Or how about the Navy's CINCUS (for Commander-in-Chief, US), pronounced "Sink us!"?



(U) How many times have people gotten confused between NASA, the National Aeronautics & Space Administration, and Nassau, the capital of the Bahamas? You never know if the person you're talking to is discussing a current space shot or telling you about his vacation!

(U) Another case where a real word is also an acronym of unrelated meaning is SIN, which stands for the Society for International Numismatics. For those who don't have a dictionary handy, numismatics simply means coin collecting, which isn't really a sin (although the spouses of such hobbyists may think so).

(U) I was a little worried when I heard about a group on some college campuses called STOP-NSA because I thought they were trying to put our agency out of business. Boy, was I relieved when I learned that it stood for Students to Oppose Participation in the National Student Association!

(U) Of course, some people develop acronyms or see them in places where none was intended. I know several drivers who seem to think that the word STOP you see on those octagonal signs stands for "Start Tromping on Pedal."

(U) We use so many acronyms in our daily work that it's a good thing we don't carry this practice over into the world beyond the fences. Can you imagine what an everyday conversation might sound like if "normal people" peppered their speech with acronyms? It might well sound like the old "Who's on First?" routine. Just a sample of this follows.

"Hi! Are you going to study CHRIS?"

"My name's not Chris, it's Jack!"

"CHRIS is a system, stupid. It's the Cancer Hazards Ranking and Information System, and you better know all about it."

"I can't study anything now. I'm on my way to a SIN meeting."

"You mean you have to go to meetings to do that?"

"No, no, you dodo. SIN is my coin collecting organization meeting. It is held TO."

"Held to what?"

"Not held to anything. TO means Tuesdays Only."

"I give up up! I'm ready to go."

"Ready to GO? How do you get ready for a General Order?"

"I didn't say 'GO'; I said 'go!' You know: depart, leave, scam, vamoose, hit the road, decamp, ..."

"Okay, but let's leave with an acronym. How about a KISS?"

"What?!"

"You know. KISS: Keep It Short, Stupid!"

# THE WHITE HOUSE IS SINGING OUR SONG! (U)



by Albert I. Murphy, E403



he dynamic Lt Col Tom Murawski of the White House staff socked it to us—in a beautiful way. He presented his informative and

(U) thoroughly entertaining program on "Just Plain English" in the packed Friedman Auditorium, first on 26 September 1983 for the NSA "heavy hitters" (Grade 15s and above and the equivalent military ranks) and then on the 27th and 28th for the "at large" NSA audiences. And what a show!

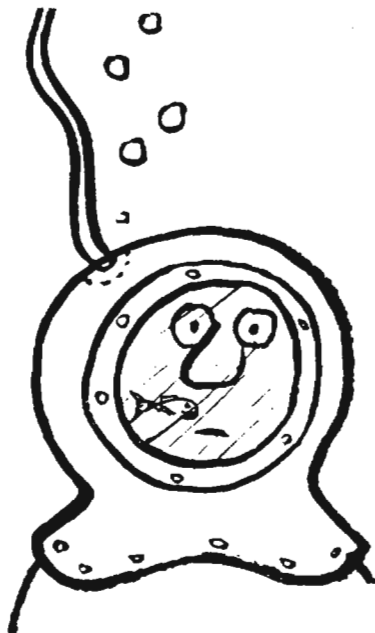
(U) In those three days he convincingly reinforced all the things we at the National Cryptologic School have been trying to do over the past several years in terms of persuading all NSA writers in general, and NSA supervisors and managers in particular, to come down to earth in their writing—to write in a way that's compact, natural, and to the point. He was singing one of our old and familiar songs, and the words came back as clear as your please.

(U) Lt Col Murawski is a tenured professor of English at the US Air Force Academy and is currently serving as an adviser on clear writing to the White House staff. His charge is to teach "Just Plain English" to the major federal agencies. That's precisely what he did here at NSA. He skillfully described the

whole array of bad things that are happening in Government writing (we let him see some actual samples of unclassified NSA writings): the gobbledygook, the evasiveness (the passive voice), the bankrupt language, the inappropriate tone—all of it! And he didn't hesitate to identify the groups he viewed as the prime offenders: lawyers, educators (can you believe it?), and military people. ("You've got lots of ex-military people here at NSA," he said. "I can tell.")

(U) We were so pleased with what he had to say and at how he said it that we decided to describe some of the outstanding details of his presentation. But then we thought that, instead of doing that, we'd ask the editors of Cryptolog to republish an article from the January 1982 issue that addressed this problem in much the same way Lt Col Murawski did. The hope was that all writers at the Agency will take heed because what the article said is now strongly endorsed by this potent force on the White House staff. The editors obliged. Please turn the page.





# THE LITERARY BENDS (U)

*by Albert J. Murphy, E403*



The story goes that a famous author once was approached at a cocktail party by a young aspiring writer who had in his hand a large draft of a novel he had written. The young man, perhaps more brash than polite, asked the author to take the draft, read it, and suggest a title. The author, taken aback by such directness and by the size of the document, thought for a moment, then asked: "Do you mention drums anywhere in the story?" "No sir," replied the young man. "Do you mention trumpets?" Again, "No sir." The maneuver had worked. "Then why don't you call it 'No Drums, No Trumpets'?"

(U) In the business of teaching Introductory Writing (EG-022) and Expository Writing (EG-122) at the National Cryptologic School (NCS), we have encountered some rather pointed feedback from some of our students, which cannot be so easily put aside. The students talk of two worlds of writing at NSA: the ideal world of writing, as taught here at the school, and the real world of writing, as practiced on the job. Eventually, one of them will crystallize the issue by saying, "This course is all well and good. But when I finish it, I know I'm going to be faced with the decision of writing your way for the sake of good writing or of knuckling under to my supervisor's blue pen for the sake of my next promotion." Rightly or wrongly, the haunting question inevitably comes to mind: "Is his or her supervisor under 35 years old and a product of society's convulsing educational system?" We choose never to ask it.

(U) How valid are these rumblings? What is the extent of alleged shortcomings in the way people in management write (we're talking primarily about supervisors and staff editors)? And what are we going to do about it? Based on our own collection of bits of evidence, coupled with this human testimony from the students, we believe that the rumblings have some validity. But since we have neither the mandate, nor the resources, nor the time for a thorough research effort, the best we can do is to present the problem in this vehicle in the hope that the managers in question will read it and do something about it.

(U) Just before the students complete our courses, as part of a normal procedure we alert them to the post-course period of what we call "the literary bends," during which they might find it difficult to apply their newly acquired (or their refreshed) set of rules of good grammar and effective writing. "Don't be surprised," we tell them, "to find your pencil frozen in your hand or your fingers immobile at the typewriter during your first writing tasks on the job." They understand that. Some have reported that that's exactly what happened. Others have had to wrestle with the problem while still in the course. It is unfortunate, however, that we are now compelled to warn them of possible additional difficulties that can occur when a person in the supervisory chain, whether through ignorance, or obstinacy, or, alas, because of misguided pressure from a supervisor at yet a higher level, discourages the students' attempts to apply what we have taught them.



(U) If managers are willing to face up to the reality that some of their people are frustrated in their jobs because, as they perceive it, we don't practice what we preach in the field of writing, then we are well on our way to solving the problem. Perhaps, then, our message to managers ought to be

**Managers:**

By all means enforce good quality control; but in the process, please be aware of this problem, be fair with your people, and be square (that is, be traditional) with the language.

We contend that the modernists are wrong. Like it or not, there is an English Language; and it is governed by a set of rules for correct grammar, effective sentence and paragraph structure, and good writing style. Perish the thought of Congress wanting to change the words of the Constitution to accommodate modern linguistic happenings.

(U) You managers, if you are following this discourse in earnest, should be asking at about this point, "Well, what have you been telling our people in your classes?" Our answer is that we've tried to convey to them the fact that there is beauty in our language, and that the students should find it and use it. We have found that they not only are receptive to this idea, but also at times are resourceful (and not too subtle) in expressing their endorsement. You can experience intellectual beauty, we once told them, by merely pronouncing the names of tribes of American Indians, for they have a majestic quality that evokes, through vivid mental picture of frontier days, much of what is noble in the American character.

Cheyenne...Pawnee...Apache...  
Comanche...Sioux...Shoshone--

here the students joined in--

Mohawk...Cherokee...Blackfeet...  
Chippewa...Algonquin...Iroquois.

Then the spell was broken as quickly as it began when one of the students wistfully offered..."the Washington Redskins." We have told them about the importance of good communication, whether in face-to-face conversations, on the telephone, or in writing; and of the potential disasters of failing to communicate. We've advised them not to write without good reason. But once they've decided to write, they should spend some time thinking about what they want to say before committing their thoughts to paper. They've heard us say many times that bad writing is usually the result of poorly thought-out ideas.

**Grammar, Spelling and Punctuation**

(U) We have compiled an array of real-world writings from NSA in-house correspondence and CRITICOMM messages, which we contend are inconsistent with what we teach. But, in order not to raise the hackles of a lot of people, we will cite only a few that are important to the point we are trying to make, and then only when we think they will do no harm. Recently E asked various in-house elements to submit any comments they might have on an NCS course on reporting, which some of their people attended. It was a bit disconcerting when a staff editor of one of those elements, in his responding memorandum, said, "We don't need grammar in the course. We in the editing chain can handle it." Impertinent of us to mention this, you say? Well, maybe. But what about the problem of credibility? It's there, isn't it? If the element in question recognizes its handiwork here, we hope the people involved will not take umbrage but will view it in the spirit of light criticism and let us make our point. We have taught your people that

1. Dangling and misplaced modifiers are major causes of confusion in communication; to wit, "The second child, Nancy, was the only child of a mother who was divorced in her infancy"; and "If found guilty, the Division of Motor Vehicles will be notified and your license may be subject to suspension."
2. Pronouns must agree in number with their antecedents. A certain ABC television reporter either didn't do his homework or decided to go modern when, in describing a recent hurricane, he said: "Damage will be in the millions, but only one person lost their life."



EO 1.4.(c)  
P.L. 86-36

## The Sentence



~~(S)~~ Since your people are not as gifted as General MacArthur was, we have trained them not to write long, Aristotelian sentences. So, when you see them trying to limit their sentences to about twenty words or fewer (to the fullest extent that the content will allow it)-- let them. We've talked them into it. Consider the following long, but not necessarily Aristotelian, opus that appeared in an out-going NSA CRITICOMM message:

3. Billy Kilmer used incorrect grammar in his beer commercial when he praised his beer for having less calories. He should have said fewer calories because few(er) is used with things you can count and less is used with things you cannot count. ("If there were fewer TVs, there would be less noise.")
4. A writer can quickly reveal himself as less than professional if he is careless with spelling. Consider the following statement that appeared in a real-world NSA CRITICOMM message:

"SGT (John Doe) IS REQUIRED TO BE INDOCTER-NATED FOR (special clearances) PRIOR TO DEPARTURE FROM YOUR STATION."

An astute, post-publication (unfortunately) comment written across this gem facetiously noted that "This will hep with hes clarence." Also, we've made it known that irregardless is a self-contradictory non-word, despite the regrettable fact that it is listed in Webster's New Collegiate Dictionary.

5. A comma is required before and when presenting a series of more than two items (matrix, row, and column). One of our students described in class how he was rebuffed by his supervisor for insisting on applying this rule. We suggested he have his supervisor call us to talk about it. We are still waiting for the call.

## Managers:

When your people try to apply the rules of good grammar, spelling, and punctuation in their day-to-day writing, they are not trying to out-write you. They are only doing what they learned. So please--let them.

We suspect that a period (a full stop) might have been intended after the word producer in the tenth line, but it wasn't evident in the copy of the message we hold. Even if the period had been inserted, the latter sentence, containing at least 105 words, would still tax the patience of the reader.

(U) In order to compose good, expository sentences, our students are following the FACTS formula (the Fast, Accurate, Concise, True, and Simple way). That means they will be trying their best to use the active voice (instead of "the great evader") and a lot of concrete, one-syllable words (we just can't bring ourselves to say "monosyllabic" as opposed to "polysyllabic" in this context). We hope we have burned into their memories the Lensear Write Formula<sup>(1)</sup> which encourages short sentences, the active voice, and one-syllable words. If you ask them about it, the

chances are good they will be able to recite to you the clear and simple "something special" lead that an obscure reporter wrote on the death of Samuel Clemens in 1910, which must have caught the breath of all who read it: "Tom Sawyer and Huck Finn are orphans tonight. Mark Twain is dead!" Notice the number of one-syllable words.

(U) We encouraged your people to use parallelism correctly and wisely in their writing, to incorporate an effective blend of periodic and loose sentences, to show their maturity in the use of subordinate clauses, and to include in their list of writing "don'ts" the principle that smothered verbs (strong verbs turned into weak nouns, such as -ization, -ment, and -ure words) and passive voice constructions frequently go hand-in-hand. The poorly written sentence "The specialization of many professions is necessitated by the complexity of our society" is best recast to read "Many professions must specialize because our society is complex." The finest sentence that we've come across at the school so far, in terms of sound structure, clear and simple content, and, yes, downright beauty, was written by a student in her autobiography project. She wrote, "When I was little, my father often said that I was the best door slammer this side of the Mississippi River." Is there any wonder why we abhor the likes of the sentence "The possible appearance of a new communications network was observed...."?

**Managers:**

When your people try to write in clear, simple, and direct language, don't assume that they are undereducated. They're only doing what they learned. So please--let them.

**The Paragraph**

(U) We have practically ordered your people never to settle for a paragraph that doesn't have the standard properties of UNITY, COHERENCE, ADEQUATE DEVELOPMENT, and CONSISTENT AND APPROPRIATE TONE. Unity calls for one central idea and a single topic sentence; coherence--the paragraph form--is the writer's sequence of thoughts from one sentence to the next, which he achieves through the use of connectives or transitional words and phrases; adequate development--the subject matter of the paragraph--involves the who, what, when, where, and why, whether accomplished through definition, comparisons and contrasts, cause and effect logic, or analysis and classification; and, tone deals with not what the writer says, but how he says it.

(C) All four of these properties, we have insisted, are essential for good paragraph structure. But the one that usually causes lengthy discussions in class is TONE. We think this is good, because it tells us that the students are trying to be sensitive to "how it will sound" to the reader by steering away from unwanted tone. So they wrestle with another set of "don'ts": "Don't be offensive ... bossy ... contradictory ... and so on."

Managers: Are you with us?

In one of our classes in Expository Writing a discussion on paragraph tone developed after we explained how the tone of separate paragraphs in a piece of writing, say in a SIGINT report, ought to be consistent with the general tone of the writing. We gave the example of reports forwarded to the NSAPAC REP VIETNAM (NRV) staff in Saigon, in 1971, by one of the ten ARVN Special Technical Detachments (ASTD), which time and again reflected a tone of absolute terror. The perimeter of the site was not secure, and the ARVN people didn't seem to care. When the reports from this ASTD came in, the staff was obliged, not without some pangs of conscience, to change the tone of the reports to fit the dispassionate, objective tone of the monthly status report within which they were incorporated for forwarding to the Director (the Vietnamization Improvement and Modernization [VIM] report). One of the students, who obviously had after-the-fact sympathy for the plight of the writers of those reports (US soldiers assigned to the ASTD), questioned the changing of the tone. After we explained some of the unpleasant realities of the situation (we also apprised her of her handicap as a caring human being), she conceded that the tone of that ASTD's reports had to be changed and that our point on consistent and appropriate paragraph tone was well taken in the class.



Gobbledygook

(U) We have described to your people in considerable detail the perennial enemy of good writing, namely gobbledygook or federalese--the old obscure writing that is usually meant to impress rather than to express. We have convinced them (we hope)

- (1) that it is foolish to use high-sounding words, such as utilize, implement, initiate, viaible, optimum, and terminate;
- (2) that roundabout expressions, such as "It is believed..." and "There is/are..." make for weak writing because they tend to repeat, they are often vague, and they leave the reader with no way of knowing what is meant, thus forcing him to work for nothing;
- (3) that we condemn the use of the expression "It is felt that..." because it has three inherent strikes against it--it is roundabout, it is passive, and it is false (one doesn't feel an argument or a contention; one thinks it or one believes it);
- (4) that circumlocutions, such as "Owing to the fact that...", "Concerning the matter of...", and "In reference to..." are nothing more than deadwood; and
- (5) that illogical, incongruous, or inappropriate metaphors should be avoided.

After analyzing the following real-world statements, we couldn't come up with a reasonably good answer to the question, "What happened to the quality control system?"

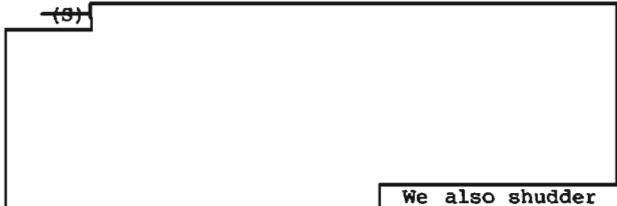
"The state of the art, as it exists today...."

"It's a sad day of affairs...."

"(We should be) starting out with a clean foot." (Let's call this one a combined, instead of a mixed, metaphor.)

Those gems are not any worse (or, if you like, any better) than the Golden Oldies taken from letters received at a welfare department in Tennessee some years back (you old-timers might remember them):

"I am very much annoyed to find you have branded my son illiterate. This is a dirty lie as I was married a week before he was born"; "Unless I get my husband's money pretty soon, I will be forced to live an immortal life"; and "I am glad to report that my husband who is missing is dead."



We also shudder to think of the possible unthinkable consequences of gobbledygooked guidance (from NSA) and gobbledygooked responses (from field elements) on matters about current developments in the world in general and in Eastern Europe and the Middle East in particular. The solution to NSA Crostic No. 35 (Cryptolog, October 1981) contains a poignant comment from [redacted] Plain English that aptly supports all we've been trying to say here. P.L. 86-36

If we want all Agency personnel to speak and write plain English, perhaps we should first teach Agency personnel English. If we want Agency management to write concise, active, decisive memos, perhaps we should first teach Agency management to be concise, active, and decisive. Let us attack the problem, not just the symptom.

(U) Having stated our case, we fully intend to continue to orchestrate drum rolls and trumpet blares for the cause of getting managers to cooperate in making clear, simple, direct, brief, and appropriate writing happen at NSA.

(1) Gobbledygook Has Gotta Go, U.S. Department of the Interior, Bureau of Land Management, page 7; US Government Printing Office, 1978, 0-269-955.



# CIRCA 1949:

Reminiscences of an Intercept Operator (u)



In the diagram below each row is divided into 5 unequal segments, the center 3 of which are labeled (5), (4), and (3). The digit in parentheses tells you how many letters there are in the word being defined in the list of DEFINITIONS in the right column; each group of explanatory terms has a number corresponding to the row of the diagram and a subsort showing the number of letters in the word being defined.

When you have figured out the 5-letter word being defined, write it in the appropriate box under the (5). Now try to find a 4-letter word that matches the (4) definition given and uses four of the five letters in the word you just wrote. The letters can be rearranged. Now take the omitted letter and write it in the small square on the left end of the appropriate row. Next, take 3 of those 4 letters to make a word that matches the (3) definition, putting the dropped letter in the square at the right end of the row.

# 5-4-3 PUZZLE (U)

by  
"WATT ZIZNAME",  
P1



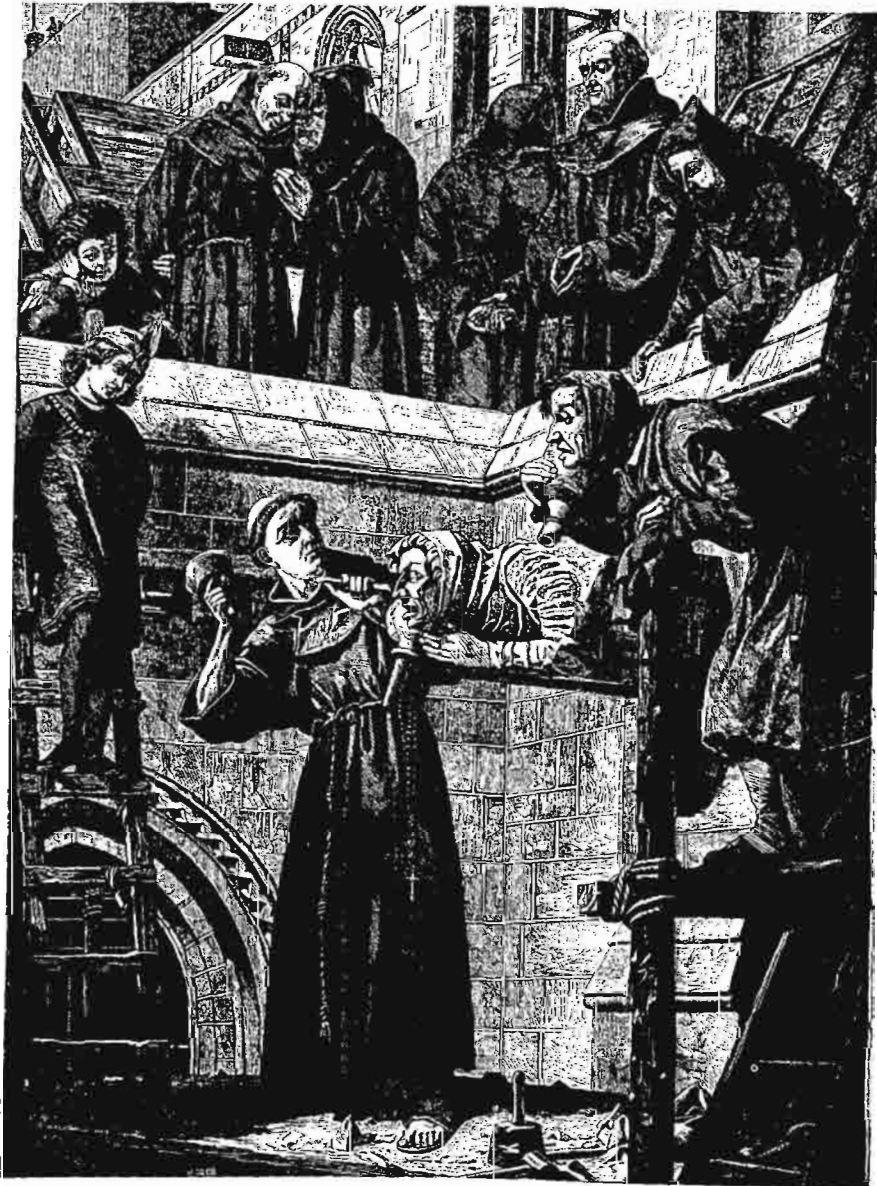
If you've found all the correct words and picked out all the right letters, when you read down the column of boxes on the left and then the right, you should see that the 22 letters you've written in those squares spell out a 3-word phrase that should be familiar to you. (The second word is divided between the bottom of one column & the top of the other.)

	(5)	(4)	(3)
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

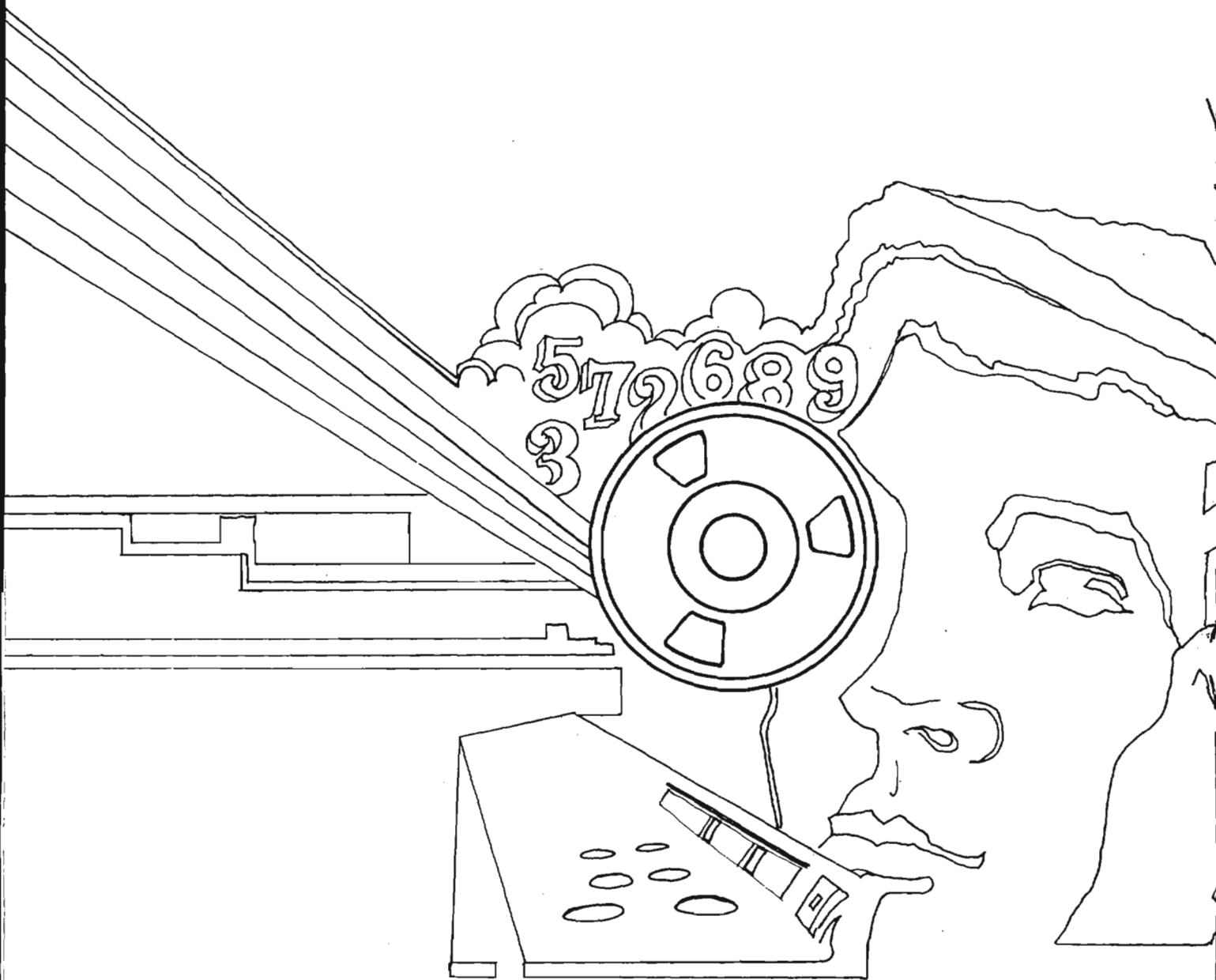
### DEFINITIONS

1. (5) beneath; (4) description of the bridge that arched the flood; (3) color of blood; a Square in Moscow.
2. (5) seat; presidency; (4) wealthy; (3) "\_\_\_ bin ein Berliner!"
3. (5) malice; (4) mince & lemon meringue, for example; (3) between Aug & Oct.
4. (5) Gertrude of "Rose is a rose is a rose is a rose" fame; (4) word after "love" or before "egg"; (3) Latin being.
5. (5) actor Charles or ballplayer Cletus; (4) stable for cows (a Bricicism); (3) Johnny \_\_\_\_, Confederate soldier.
6. (5) what Rembrandt and Titian did and used; (4) Middle Eastern pocket bread; (3) form of bribe allegedly "to insure promptness" that Ambrose Bierce described as "salary we pay to other people's help."
7. (5) raised platform on which performances are presented; kind of coach; (4) obtains; (3) "Ready, \_\_\_\_, go!"
8. (5) Joseph Conrad, Lech Walesa, Madame Curie, and Pope John Paul II among others; (4) sit for an artist; (3) a piece of bread or other food soaked in milk or broth before being eaten; gift for Cerberus.
9. (5) Greek mythological creature, half human & half bird; police car adjunct; (4) strap for making a horse go "Whoa!"; (3) anger.
10. (5) length of a boxer's extended arm when throwing a punch; (4) part of the foot; kind of bishop; curvature; (3) short cheer; Hur's last name.
11. (5) Jones the engineer; (4) affirmative votes; (3) Black, Red or Yellow.

(The solution will appear in the next issue of Cryptolog.)



## What Is The Caption?



~~THIS DOCUMENT CONTAINS CODEWORD MATERIAL~~

~~SECRET~~