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SOME BACKGROUND ON THE C/T MERGER

The National Security Agency is pleased to announce the merger of the C and T organizations on 29 May 1977.

T06

At home

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On 25 March 1977 the Director published a memorandum directing the "Consolidation of Automatic Data Processing and Communications." On 29 May the C and T organizations combined to form the Telecommunications and Computer Services Organization (T) under the Deputy Director for Telecommunications and Computer Services (DDT). It is my purpose this morning to review with you some of the background to this decision. Please note that the title is "Some Background." I know there are many different opinions about something as significant as the C/T merger. This is especially so when people feel -- as the people in C Group and TCOM felt -- that they were generally satisfied with the way things were.

It is not my intent to discuss the new organization itself, but to concentrate on some of the events which led to the C/T merger. In other words, to explore what many believe to be an increasing convergence of the disciplines of data processing and telecommunications which indicates that they should be combined.

Closely related to this convergence is the problem of how to organize automatic data processing (ADP). The problem of how to organize is not unique to us or to the federal government. In the fall of 1976 the American Management Association began sponsoring a series of 3-day study sessions on "The Crisis in EDP Organization," primarily for the business community. These study sessions -- which deal with the organization of such equipment and functions as "Data Networks," "Data Bases," "Micros," "Minis," "Virtual Memory," "Distributed Systems," "Stand-Alone Minicomputers,"

Complete transcript of a talk given to CISI (NSA Computer & Information Sciences Institute) in September 1977. Excerpts of the talk were printed in Field Information Letter 1-78.

"Minicomputer Networks," and "Small Business Computers" -- have been well attended, I understand.

Basic Principles of Organization

It might be well for us to refresh our memory about how this subject of "organization" fits into the management function. Ernest Dale, in his *Management Theory and Practice*, lists the following management functions:

- Planning,
- Organizing,
- Staffing,
- Direction,
- Control,
- Innovation.

You will note that "organizing" is of a very high order in top management's consideration.

In his 1964 book *Managing for Results*, Peter Drucker outlines how knowledge is the essential ingredient. He cites IBM as an example. IBM bills for equipment; that was more true in 1964 when he made the statement than it is today. But both IBM and the customer know that knowledge is the essential thing, and that the customer buys service rather than product. Indeed, it is this awareness on both sides that explains why IBM, starting late and with reluctance, took the leadership in the computer field away from companies that had started earlier and that seemed to possess much greater technical competence. In his later and very provocative book, *The Unseen Revolution*, in 1976, Drucker discusses the fact that more and more jobs are "knowledge" jobs in our society. The number of "knowledge" jobs is growing rapidly while the number in manufacturing has shrunk sharply. Yet little has been done about the productivity of the so-called knowledge worker. The principles that apply to making manual work pro-

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ductive also apply to knowledge work. He then outlines the need for analyzing and organizing the tasks of "knowledge" jobs to improve productivity.

"Challenge to SIGINT: Change or Die" (1969)

By way of introduction to this subject in NSA, I would like to make a digression from the C/T merger and quote from an article that you may remember from the first issue of the *Cryptologic Spectrum* in 1969. The article, "Challenge to SIGINT: Change or Die," was written by [   ] a recognized authority in the scientific community and a member of the NSA Scientific Advisory Board. In that article [   ] pointed out that SIGINT activities, obviously, would continue to be important for NSA's future, but the ever-increasing speed of technological advances was threatening to put us out of business, unless we could exploit the other changes that opened new doors. If we can't move with the new technologies that help us, [   ] said, the ones that make our job harder will bury us. By "change" he did not mean something simple, like replacing vacuum tubes with transistors and continuing to perform the same old functions. He meant changes in strategies, tactics, tools, organizational structures, resource allocations, and personnel. He said that the right way of doing the job would change in elusive ways.
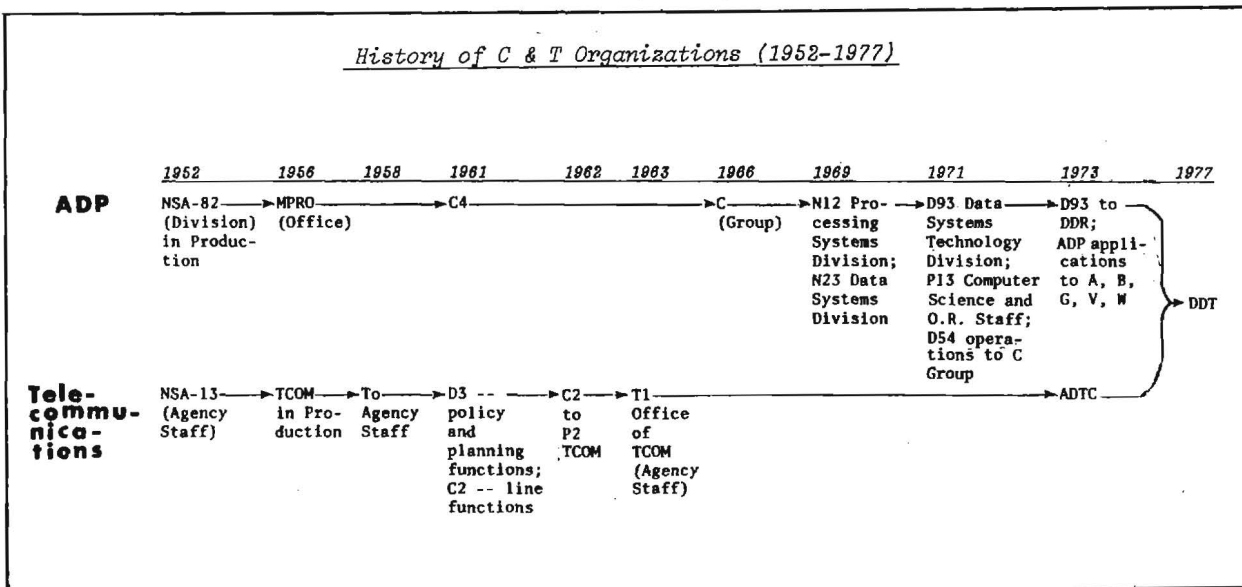
[   ] further pointed out that in the "poor world," where over two-thirds of the world's population live, the population growth rate was 3 percent per year or more, while in the "rich world," where we live, the rate was dropping. We can expect, he said, to be attacked (verbally and physically) over the next few decades by larger numbers of dissatisfied people. We cannot expect to bring more people

into our military defense; we must move forward in labor-saving tools so that we can do more work with fewer people. The number of governments in the world to whose intentions the United States must keep alert was growing, and even when [   ] wrote these words in 1969, was well over 100. While only a small number of nations threatened us in 1969 with military force, there was little to suggest that the number could not increase dramatically within the coming years. We would have to be on the lookout in all directions simultaneously. Meanwhile, the communication of information from point to point was becoming incredibly less costly. There was promise, [   ] said, that those costs would fall by a factor of 5 or 10 within a few years after he wrote his article.

[   ] warned that although many of the early contributions to the arts of automatic computing had their origin within NSA and its predecessors, the commercial world appeared to be outstripping us in the application of computer systems. As the cost of output from computers continued to drop, we had an opportunity, he said, to do more and more work with the help of these amazing machines. So this was the challenge that [   ] saw in 1969, and it continues to pertain today: Don't try to stick too long with obsolete means. Press forward with vigor and stay flexible. Try to achieve that nice distinction between the visionary and the tried-and-true.

History of C & T Organizations

In briefly reviewing the history of the C and T organizations, we can get a better understanding of what has happened to both ADP and Telecommunications by comparing their organizational development over the 25 years since the Agency was created.

History of C & T Organizations (1952-1977)

	1952	1956	1958	1961	1962	1963	1966	1969	1971	1973	1977
ADP	NSA-82 (Division) in Production	→MPRO (Office)		→C4			→C (Group)	→N12 Processing Systems Division; N23 Data Systems Division	→D93 Data Systems Technology Division; P13 Computer Science and O.R. Staff; D54 operations to C Group	→D93 to DDR; ADP applications to A, B, G, V, W	→DDT
Telecommunications	NSA-13 (Agency Staff)	→TCOM in Production	→To Agency Staff	→D3 -- policy and planning functions; C2 -- line functions	→C2 to P2 TCOM	→T1 Office of TCOM (Agency Staff)				→ADTC	

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As one can see from the chart, ADP has remained within the Production organization, except that certain staff functions have been assigned to Agency staffs and DDR. In 1971 the N12 and N23 functions went to D9, the Assistant Directorship for Science and Technology. You will note that in 1961 the ADP function was C4. At that time TCOM was C2 -- the two functions were both under Group C as co-support functions within the Production organization. The idea at that time was much as it is today -- to achieve an integrated systems approach to the design and flow of materials in the overall NSA production system.

In the case of telecommunications there were some complications which did not appear in the ADP field until later. TCOM functions within NSA were always more closely aligned to other elements of the government than was ADP. This became more pronounced in the early planning of CRITICOMM, when the Chief, TCOM, wherever he was, was working closely with the J6, JCS, and DCS. There was a need for "the emphasis and prestige that the Agency desired to place on TCOM functions and the channels of communications desired between the Director and his principal TCOM executive."

Consolidation of ADP and Communications Outside of NSA

I would like now to review, briefly of course, what has been recommended and what is being done about ADP and telecommunications organizations outside of NSA.

A Blue Ribbon Defense Panel Report, in July 1970, found that "indications are that most computers will be on-line with teleprocessing capability by 1980." The report continued with the statement:

"Present assignment of policy responsibility for ADP in OSD takes inadequate cognizance of the close technical and cost relationship of communications and ADP management. As a consequence, the interface between ADP and communications is inadequate, and will become increasingly inadequate as digital communications technology increases."

The House Committee on Appropriations, in its report on the FY-71 DoD Appropriation Bill, expressed concern with the Panel's recommendation that all responsibility for Defense ADP should be placed under the supervision of the Office of Special Assistant to the Secretary of Defense for Telecommunications. The committee was pleased with progress being made in improving the management of communications and ADP, but saw them as two distinct and separate operational activities which should have separate management.

A number of NSA people -- and I was one of them -- attended a symposium on computer/communications sponsored by the National Communications System in October 1970. The theme of the symposium

was "The Growing Interrelationship Between ADP and Communications." That interrelationship, with the tendency toward convergence, can be seen from the following diagram.
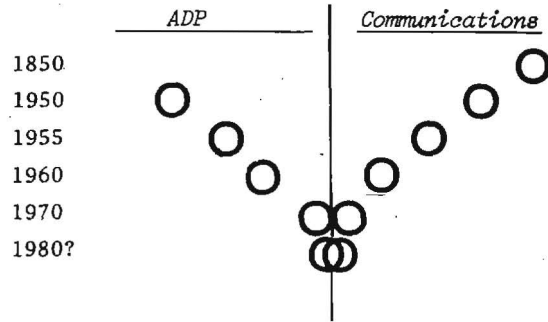
This symposium followed the logic of the Blue Ribbon Panel and created considerable impetus for consideration of ADP and telecommunication mergers throughout the federal government. Perhaps I can best summarize the thrust of the symposium by quoting from its program:

"Teleprocessing is a new technology, resulting from the marriage of automatic data processing and telecommunications techniques, providing a tool to extend information processing, storage, retrieval, transfer, and recording capabilities for more effectively directing and controlling organizations and systems. Typically, while teleprocessing retains certain characteristics of its parents, this new technology possesses features that are both different and unique."

The push toward closer coordination between ADP and telecommunications in the federal government continued through the early 1970s.

Interagency and DoD Conferences (1976)

Mr. Terril J. Steichen, from the Office of Telecommunications Policy, Executive Office of the President, spoke to the Interagency and Planning Conference in early 1976 on the challenge of the converging technologies and the crossing of disciplines. He expressed concern that the convergence of these two formerly separate technologies has spawned a very top-heavy dual staff organization that is perhaps beginning to cause more problem than it solves.

Later, as a part of the Department of Defense ADP Management Improvement Conference held on 12 January 1976, several issues affecting the DoD Automation Objectives were identified. One of these was AUTODIN II. The presentation and discussion for this item centered around the theme that a cooperative effort between the ADP and telecommunications communities is all-important.

The Honorable Terence E. McClary, ASD (Comptroller) concluded the conference with some pertinent comments:

- Congressional direction to the Air Force relative to centralizing all ADP resources will be executed, unless absolutely impossible.

- GSA is reaching out with leadership plans in the ADP arena; the DoD community should react with the view that if we cannot change GSA, then we must learn to live with the situation.

- The DoD ADP group is characterized by emotion and outrage. This attitude may require correction. There is a need to back off and look at the reasons why GSA and the Office of Federal Procurement Policy thrusts in ADP are taking place. We may be wise to adjust more to the public policy. Positive leadership by the DoD ADP executive may be more important than ever before.

Survey of Communications Organization and Structure

Gilbert Held, Acting Chief of Teleprocessing for the U.S. Civil Service Commission, conducted a survey of the communications organization and structure at eight government agencies and industrial firms. His June 1977 report uncovered a characteristic common to the majority: lack of organization.

Perhaps this can best be demonstrated by taking a look at several major government organizations to see where ADP and communications fit into the overall scheme. A thorough examination of the organizational charts for those organizations reveals the following:

- *Executive Office of the President* has an Office of Telecommunications Policy, but nothing on ADP;

- *GSA* has a Commissioner of Automated Data and Telecommunications Services. As you know, GSA was probably the first major element of government to combine these services;

- *Treasury* has an Office of Computer Sciences, but nothing on communications;

- *Veterans Administration* has a Department of Data Management, and under that department is an Office of Telecommunications Service;

- *Army* has a Communications Command, but you can't find ADP;

- *Navy* has a Naval Telecommunications Command, but no ADP;

- *Air Force* has an Assistant Chief of Staff for Communications and Computer Services. As I mentioned earlier, the merger was done by Congressional direction.

Situation in Private Industry

At the present time, only three companies -- RCA, Western Union, and Comsat General -- own complete satellite systems. In January 1977, though, the Federal Communications Commission took a momentous step by admitting IBM to the satellite business, and with it the first system that will push the technology to some of its logical conclusions. Five or six years from now, if all goes according to plan, large corporations and government agencies will have private networks using a total of at least 375 earth stations.

The current satellite facilities, for the most part, all transmit to a relatively few, large earth satellites, which then send the message to customers over land lines that are expensive and can be noisy and slow. The new
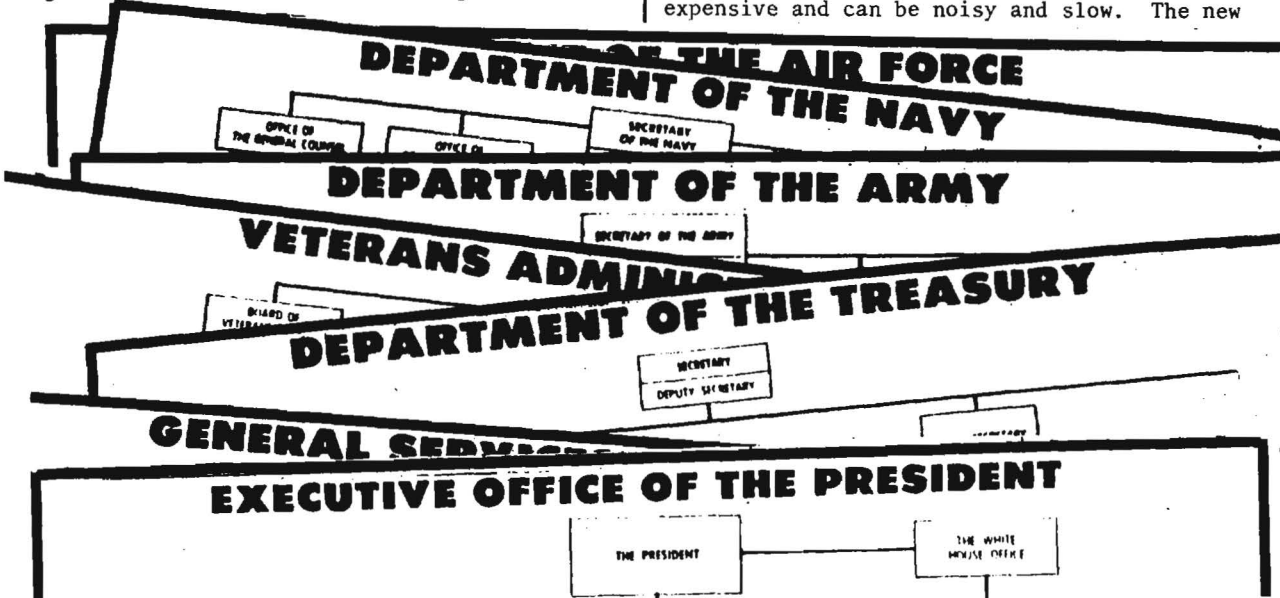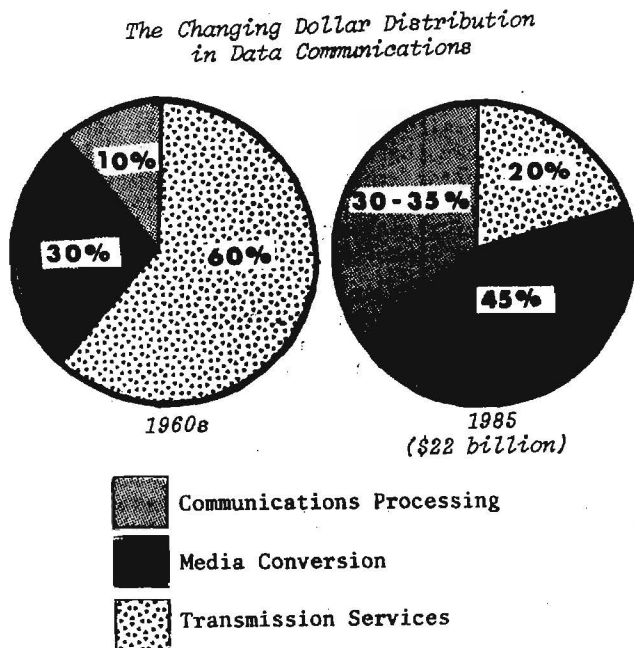
system will bypass this mire by broadcasting directly to antennas small enough to fit into a two-car garage. They will typically be on the roof of a building or in a parking lot. At an average production cost of $345,000 each, the earth stations will be cheap enough for a corporation to lease a dozen or two and forge direct celestial links among its offices and plants across the country.

For those of you who haven't read the book *The Waves of Change*, by Charles P. Lecht, which has been published in *Computerworld* in installments, you will find some interesting thoughts. In his discussion of future system architecture in the commercial field, he sees a vast expansion in on-line, communications-oriented, transaction-oriented, and real-time systems in the 1979-1984 period. But he sees this growth restricted by AT&T communications tariffs and line inefficiencies until AT&T can fully implement digital networks, or until IBM communications satellites and private branch exchanges become operational.

Lecht sees IBM and AT&T pursuing strategies which suggest major competitive confrontations by the end of the 1970s. Both want to supply a total end-to-end service. A key challenge is to define the relative meaning of "data processing" in such a way as to arrive at some workable consensus on the meaning and roles of "message switching," "transmission," "circuit switching," and other interdependent terms and concepts. This issue is currently being hotly debated by the Federal Communications Commission.

However, the shape of the data communications "revenue pie" is changing dramatically. The change in the relative shape of the pie

The Changing Dollar Distribution in Data Communications

1960s   1985 ($22 billion)

▒ Communications Processing

■ Media Conversion

░ Transmission Services

slices is primarily a result of technological changes. Clearly, AT&T does not want to participate solely in the transmission-services aspect of the business, given that segment's expected relative shrinkage to a 20% share of the 1985 market configuration.

NSA Studies and Recommendations on Organization

I now want to outline the NSA studies that eventually led to the merger of C and T in the summer of 1977. I am sure you will agree it was not a hasty decision.

In March 1972 the Director, VADM Gaylor, directed that a study be conducted to examine the possibility of merging the Agency's ADP and telecommunications functions. An *ad hoc* committee, with membership from most of the key components, was appointed to conduct the study and was chaired by Mr. Neil Carson from PROD.

The Carson committee identified the following 12 problems in two categories -- *planning* and *operations* -- and, for each of them, attempted to answer the question: Would the merger of the ADP and telecommunications functions facilitate the solution of the problem?

Problem	Would merger facilitate the solution?
Planning: 1. Difficulty in obtaining realistic, well-coordinated long-range requirements for telecommunications and ADP	Probably not. This is primarily a problem for P in developing requirements which encompass those of A, B, G, and W. There might be a slight advantage in having a single technical interface for C and T1.
2. Many requirements are *ad hoc*, necessitating quick reaction to a specific, unpredictable situation	Not directly. Combining functions could facilitate some.
3. Lack of integrated planning for ADP in the telecommunications area	Yes.
4. Omissions in plans	Yes, the merger would facilitate but not guarantee a solution to this problem.
5. Imbalances in programming for telecommunications vs. ADP and other CCP areas	Yes, although many other factors also influence the balance.

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6. Complexity of external coordination and relationships in telecommunications planning, roles of DCA and the military services	No. On the contrary, the present status of Tl in the organizational structure makes it easier to deal with this complexity.
7. Incompatibilities between terminal equipment at field sites and internal NSA processing system	Possibly. But this is more related to other problems already mentioned. A strengthened role of a combined C and Tl would help some.
8. Lack of total systems automation for computer networks	Yes. The combination of ADP/COMM functions into one organization should accelerate developments in this and related fields.

Operations:

1. Coordination of telecommunications operations involving computers	Yes.
2. Troubleshooting, i.e., the difficulty in determining whether a computer problem is due to computer hardware, executive software, lines terminal equipment, or worker software	Probably, in that there would be a greater probability that those involved would learn to speak the same language.
3. Time and red tape involved in accomplishing relatively simple operations, e. g. moving a computer terminal	Yes, potentially. Delay of work requests could be alleviated.
4. Lack of consistency in availability of C8 and Tl maintenance personnel	Yes. A single key element could more easily adjust resources to balance the situation

The Study Group attempted to anticipate major factors in the future and considered the following in some detail:

- Computer netting;
- Software conversion;
- Integration of ADP into analysis; and
- Dynamic resource allocation.

I shall not go into the details of their deliberation, but simply state their conclusion that combining C and T would alleviate these problems. Regardless of the organization, they saw a great need to have better definition of the interfaces between C, T, and SIGINT processing.

The majority of the Study Group concluded that most of the Agency's automatic data processing and telecommunications functions, especially the planning, software development, and maintenance, should be integrated. The Group believed that the two disciplines would rapidly merge into one as technology advanced in the 10 years following their 1972 study.

The Group also believed that the ADP component must become a central Agency utility of hardware, systems software, and data bases, with applications software increasingly the province of the user. Because of the complexities of the ADP effort and of the external relationship in the telecommunications area, the group considered it necessary to accomplish the merger in the following two stages:

- C Group to be removed from the Production organization, reorganized, and given a strengthened mission statement as the central NSA/CSS authority for automatic data processing systems. C and the P Staff, with a third party chairing the working group, to be charged with completing a plan for separation and reorganization within 6 months;
- While this action was under way, C and Tl to be charged with preparing a plan for merging the ADP and telecommunications functions. Such a plan to be completed within 12 months.

There were two minority views to this report (two of seven members, plus the chairman). One minority view agreed that an organizational merger could become the solution at some point in the future, but major surgery was not recommended at the time. What was recommended at the time was an exchange of skilled ADP and communications personnel.

The other minority view was that it had not been shown that the activities would be conducted better, that economies in dollars, space, or manpower would result, or that the efficiency of the Agency's operation would be significantly improved.

_____ USN, who had been chief of NSA Telecommunications for several years, studied the Carson report and commented, on 14 June 1972, that he believed "that the long-range trend is toward consolidation." He was very concerned that such a merger be done carefully.

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Because the findings of the group were not conclusive, the Deputy Director reported to the Director on 24 May 1972, ". . .the group is now exploring alternative courses of action which might also achieve the objective of compatible system design without actual organizational merger."

The Ware Report (1973)

In 1965-1966 Dr. Willis Ware had been tasked by the Director, LTG Carter, with preparing a study of the Agency's computer center. The study was to review capabilities and capacity planning. In 1971 Admiral Gayler authorized a review of that earlier study, but asked that additional factors such as centralization and the advancement of communications be considered.

In May 1973 the second Ware Study Group published its report. That group, of course, had the Carson study as additional background. The only recommendation in the second Ware which bears on the present subject is:

> "Relocate the Agency computing facility organizationally so that it has high management visibility, is the property of the entire Agency and not only of the analytic groups, and is under the direct purview of the Director."

The rationale for that relocation was:

- It would give the Director better visibility of a resource that consumes a substantial fraction of the budget;

- It would give him a larger personnel base over which to exercise the man-machine trade-offs of operational costs;

- It would put the allocation of a scarce resource in view at Agency level, where things can be selectively controlled;

- It would be more responsive to the broad needs of the Agency; and

- Since computing and communications were becoming interrelated technogically, combining these two functions would be advantageous. Should this occur, it would be more appropriate for them to be an independent organization responsible to the Director.

The 1973 Ware report also recognized that not all computer-trained personnel should be located in one organization. The analytical groups -- A, B, G, V, and W -- undertake problem-solving efforts involving computers and should have "applications programmers" assigned. As you will recall, all applications programmers in C Group who were directly supporting one of the analytical elements were transferred out of C in July 1973.)

The OSD Audit of ADP (1975)

An OSD audit of NSA's ADP equipment maintenance, dated 7 July 1975, recommended consolidation of ADP equipment maintenance and supply support responsibilities in order to achieve cost savings.

The audit found that:

- Maintenance personnel trained to work on the same ADP equipment were assigned to various elements -- operations, R&E, and telecommunications;

- More control was needed over repair parts inventories;

- Improved procedures were needed to review and monitor contract maintenance support to ensure that contractors were satisfying contractual commitments.

The audit recommended that activities involving the maintenance of ADP equipment be consolidated under the management of C Group.

The Tordella Study (1976)

On 23 October 1975 the Director, LTG Allen, asked Dr. Tordella to look into the current functioning of T and of C. Dr. Tordella submitted his report on 15 March 1976. He recommended the establishment of a new Assistant Director for Communications and ADP. He considered it a sound solution and suggested that, if not implemented at that time, it would recommend itself at such time as any major reorganization of NSA could be accomplished.

He also expressed a major concern stated by DDO that removal of C from PROD would decrease the ADP responsiveness to DDO analysts. DDO argued, with great logic, that the reorganization proposal risked damage to the relationship between ADP and operations to achieve improvement in what could be the narrower relationship between ADP and communications. If the C/T organization were merged outside of DDO, the C experts could become more ingrown and systems-oriented and less responsive to DDO analyst needs.

Of course, one possibility was to merge C and T within DDO. TCOM had been in PROD, as I outlined earlier, but the thought of resubordinating TCOM to PROD was rejected because many of the goals of combining C and T would be negated. Dr. Tordella concluded that the *status quo* was clearly the least disruptive choice, but even if that were chosen in the short run, he recommended that a merger be planned for an early date.

As we know, the Director considered the matter for about a year and selected an appropriate time to direct the merger.

A Look at the Record

I have talked at some length now about the expected acceleration of the convergence of data processing and communications. Now I would like to look at the record of the past to see what has been happening here at NSA.

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I really hate to gloss over this period and the outstanding work that was done by the people in both the old C Group and TCOM. The advances during this period have been dramatic and have provided the technical base for the accelerated growth of the future.

Improvements Expected from C/T Merger

During the several months of 1976 and 1977 that General Allen considered the relative merits of merging C and T into a single organization, his staff helped him develop a list of improvements to be expected from such a merger. Those expected improvements -- which really constitute the "bottom line" of the merger -- are:

- enhanced visibility of a more direct management focus on the Agency's computing resources;
- creation of a central point for long-range planning/systems development involving computers for communications and processing;
- greater effectiveness and efficiency in application and management of computing resources;
- consolidation of computer maintenance activities;
- central control of support planning for computer facilities;
- clearer definitions of interface between Agency customers (P, R, S, T, M, N, field, etc.) and supplier of computing services;
- possibility of development of standards across the board, rather than only within projects;
- centralization of control of policy and procedures for communication and computer systems/services;
- possibility of better career development.

"United We Stand"

In conclusion, all of us who work in the new T organization have a major challenge and responsibility. Communications and computer services have been fused into one and organizationally placed under a Deputy Director in an attempt to achieve the improvements I have just outlined. It is up to us as individual members to insure that it becomes a real fusion of the two types of services and the two technologies, not simply a combination of two things under a common management. There is a great reluctance for organizations to change. We must be especially attentive to the risk that the merger be only a half-one.

THE HAND IS NOT QUICKER THAN THE EYE

Many years ago I was told that "a good analyst" does his own logging, counting, and tallying. While at first I admit I thought I was being set up to do all the menial labor (my son calls it "the donkey work"), it wasn't long before I saw that the senior people around me *did* do their own logs, and counts, and tallies -- not always, but much of the time.

I can remember more than one callsign problem when the callsigns had been extracted (by hand) from some sort of generating matrix and inscribed (again, by hand) into pages. Often the makers of the pages would begin in an attempt to be very "random" but boredom and inattentiveness quickly set in and both processes, extraction and inscription, slowly became more orderly and regular. Near the end, as fatigue set in, the processes became virtually mechanical. Such "handwriting" patterns -- top to bottom, left to right -- are sometimes so strong that one can convert pages from arbitrary to true base on this feature alone. On a problem like this, one can deal with the problem on a statistical basis -- one can even convince one's statistically/mathematically minded friends of the truth of one's solution -- but the acid test is to sit down with pencil and cross-section paper and, by hand, duplicate the process, callsign by callsign. If your solution is right, you'll see it and you'll *feel* it intuitively.

In both of these processes, we gain analytic insight by doing it ourselves. Logging brings us into contact -- a kind of slow-motion contact -- with the material we are studying. I don't know about you, but I know that I have *discovered* more things while logging, or counting, or tallying, or some other donkey work than I have while sitting there looking at the results of the logging/counting/tallying. Especially the discoveries that were unexpected -- outside the range of what I *thought* I was going to find. In the extraction/inscription kind of problem, the insight comes as my hand follows the hand of the enemy signal officer. Why did he stop just there? What made him jump over (or away from) that callsign?

Nowadays we are told that the computers are going to do all things for us. But what happens to that intimate contact with the material when the original traffic -- if you can call it that anymore -- is deep inside a computer somewhere and all you've got to look at is some computer output? Well, some of us still find a way to do some hand-logging. And not just

because we can't get responsive software support (that's a subject for a separate article). We *want* to log! It helps us touch the material. It's like buying a piece of land and not being satisfied with topographic charts -- you have to go out and walk all over it. Then you begin to *know* the land.

I have always had the notion that someday interactive computers with *screens* might begin to meet this "touching" need of the analysts.

Has anybody done this sort of thing or ever seen it done? If it works, I'd sure like to stop all this logging!

I had "Animal Crackers in My Soup," but you've got

A DONKEY IN YOUR WHAT?

the feedback process.

The group of mayors was touring the water quality-control facility at a municipal reservoir. Their tour guide, a young engineer, repeatedly extolled the virtues of the equipment they were about to see. They entered the operations room and beheld an entire wall of gauges, dials, lights, and buzzers, all sensing the pulse of the hundreds of acres of water outside the building. Fully a dozen technicians moved purposefully back and forth among the dials and gauges, stopping to record their readings on the forms attached to their clipboards.

"Gentlemen," intoned the proud tour guide, "this facility and its equipment represent the absolute state of the art in municipal water supply quality control. From this one room, staffed by only 12 men per shift, the health of over eight million people is guarded against disease. From here we monitor numerous hazards. We scan the salinity, the coliform level, and the chlorine concentration. We check for algae growth and a host of industrial contaminants and agricultural pollutants. To put it succinctly, we're on top of it."

Following a polite round of applause and a few parting oohs and aahs, the mayors headed back to their bus for the return to their hotel, convinced to a man that they would request funds for a similar facility in their next budget.

As they walked across the dam, they saw a sight that caused their jaws to drop. There, lying on the shore of the reservoir, half in and half out of the water, was the bloated carcass of a dead donkey. It had not affected the salinity; nor had it made any contribution to the algae concentration; and so, it had gone undetected despite "the absolute state of the art" in sophisticated equipment.

The story, of course, is apocryphal, but it illustrates a lesson which, while always important, becomes increasingly so in the age of computers and staff meetings.

A host of "bugs" raise their ugly little heads when machine processing intervenes in

All over this agency are managers who scan performance-oriented printouts with a frequency ranging from daily to monthly. They rely heavily on the reports they review to give them what they need in order to fulfill their role. Many will not discover, until a "dead donkey" of some sort shows up in their shop, that statistics, as useful as they can be, are not meant to be the end-all. Their purpose is to indicate, hint, or suggest that a problem *might* exist. They may highlight a known problem or aid a manager in distinguishing between a symptom and an underlying cause. At that point the computerized report has done as much as it can ever do.

The other pitfall comes about when an individual rises within an organization to the level at which the role is to manage *managers* (as opposed to a first-line supervisor, who manages the people who actually perform the tasks). Meeting with subordinates then becomes the primary mechanism through which the manager acquires data on the system for which he is responsible.

Heaven help the manager whose knowledge of his organization is limited to that provided in staff meetings by subordinates who, in turn, rely too heavily on statistics. That constitutes double jeopardy.

The cure for "managerial myopia" is prevention. For every half-hour spent reviewing statistics, a like period should be devoted to visiting part or all of your empire. It prevents "dead donkeys" in your reservoir.

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A LINGUIST LOOKS AT THE "TUBE"

THE TUBE IS COMING

Computer systems which use video, or CRT (cathode ray tube), terminals distributed to work areas are on the increase at NSA, and we linguists can take heart that the "tube," plus a good text manipulation system, can be an ideal tool for the translator.

THE TUBE AND THE NEWS MEDIA

The fact that video terminals are widely employed by the news media is evidence of their usefulness to those whose job is writing. The major wire services and, according to the NEW YORK TIMES, more than 300 newspapers have installed computer systems which permit reporters to type their stories on the screens of CRT terminals, then move their drafts to other terminals for editing, proofreading, and computerized layout and typesetting. As long ago as 1970, UPI let a contract for such a system, and in 1971 AP reporters were already writing stories on the screens of a trial system.

This item from a recent issue of U.S. NEWS AND WORLD REPORT tells of that publication's system:

"Instead of a typewriter, the editors use a video-display terminal, or VDT. It is simply a keyboard attached to a television screen. Letters appear on the screen when the keys are struck. A computer to which the set is connected allows writers to drop words with the push of a button, or insert full sentences without retyping old copy. Entire paragraphs can be transposed by striking other keys. This saves time spent erasing, striking over, shuffling paper and typing clean drafts.

"The VDT was viewed with skepticism by many newsmen steeped in traditions of a business that has used typewriters for generations. 'It seemed like a hell of a lot of trouble to go to to write a story,' says Associate Editor Frank Diggs. 'But you get hooked to the point that you come in in the morning with a smile on your face to sit down with it.'"

A more detailed description of a typical text-oriented terminal comes from this COMPUTERWORLD news item:

"Designed exclusively for organi-

zations like newspapers, publishing houses and other communications firms, the [Delta 4300] terminal provides text manipulation features that include automatic word wrap, automatic ragged right sentence and paragraph justification and automatic justification of new insertions, the firm said.

"In addition, four automatic search modes are possible including searching text for a specific word or word string; search and replace each occurrence in text with a new word or word string; search and replace upon request; and search and delete each occurrence in text of a specific word or word string.

"Other features include the ability to move/copy/delete any defined text from the terminal's memory."

The similarity between news media operations and NSA translating and reporting makes us ask whether we Agency linguists might profit from the use of technology which the news industry finds so effective. Businesses also are stepping up use of computerized "word processing" equipment, including video screens, to produce letters and documents.

THE TUBE AND TRANSLATION

We can never translate at computer speed, but a computerized tool which removes our dependence on paper can make us much more productive. Surely everyone who has worked at translating a foreign language has felt frustration at the slowness inherent in the conversion of foreign words to an English translation on paper. A typewriter may be a little better than longhand for some linguists, but the medium is still paper, where small corrections are time-consuming and revisions require recopying by the translator or someone else.

The feature of the video terminal which I find most attractive is the worksheet nature of the screen. I can type as fast as possible, knowing that any correction, insertion, or deletion can be made instantaneously. I can transpose whole sentences in a moment -- a marvellous time-saver when sentences in the

original text are long and convoluted. After I have made all needed changes, my draft is actually the finished copy. In a total system, a button push would flash my translation to the terminal of the checker and then to the releaser. I could print a copy for local reference if needed. An EXPERT data form could be displayed on the screen, and data elements not recoverable automatically from an associated data base could be entered quickly.

From my experimentation with a CRT terminal for translating texts for product, I estimate that I at least double the productivity of the time I devote directly to translating. The amount of time saved will of course vary by person, language, and subject matter, but any linguist should expect to make his valuable language skills more effective.

Although it is the experienced linguist who will profit most from the use of a video terminal, the work of the less experienced will also be speeded up. The worksheet nature of the display screen makes alterations easy for him or the reviewer without the need for retyping.

If a translator uses a dictation system, _____ the transcriber will be the one who uses the video terminal, with the same advantages of rapid correction and revision and the capability to transmit completed texts for checking and disposition at a button push.

There are, to be sure, conditions for the success of a translator's video terminal system. The first is up to the linguist, and the rest are the responsibility of management:

1. The linguist must be able to type. This is not an unreasonable requirement in a high-technology agency. A typing course is available in the learning center for any who need it.

2. There must be a terminal at the linguist's desk and a printer nearby.

3. Text manipulation on the screen must be flexible and fast.

4. The system must be dependable. Nothing will discourage the linguists's use of the terminal more than a few lost translations.

5. The lighting and physical arrangement of the terminal must be suitable for constant use.

THE TUBE AND A TOTAL SYSTEM

Although my immediate purpose here has been to extol the value of the CRT terminal to the translator, the total benefit of an on-line, intercept-to-product system should be kept in view.

We should not only help the translator to be more productive, we should capture the first key stroke of his translation on the computer terminal and pass it on electronically to the end user without copying from paper. Record copies on paper undoubtedly will be wanted at some points in the flow, but paper must not be the medium of transmission. Time and money are wasted, and errors introduced, by the retyping required in the present process.

In G Group, for example, _____ If a text editing system is then available on those terminals and there is a direct connection to NSA's product release and distribution system, the translator will be able to perform his work as an integral part of an overall system.

Segments of the total system principle are already in use or on the way, but they are limited either to a part of the Agency or to a part of the process. To make the _____ concept a reality, we await a total on-line system, hopefully one with text-handling features which will allow us who are linguists to be as productive as technology will allow.

THE TUBE AND THE TRANSLATOR -- "I DO"

Both linguists and managers have a part in arranging the marriage of the translator and the video terminal. We who translate must be willing to accept and master the use of tools which will make our language knowledge more valuable to the Agency. For its part, management must ensure that new on-line systems have flexible, fast text-handling capabilities plus suitable physical environment and that the translator's role is not merely an afterthought. Agency efforts to recruit and keep good linguists should be matched by the determination that they will have modern equipment for their part in SIGINT production.

(This article was typed and revised on the screen of a computerized word processing system. It was produced in the form of a single column to fit the CRYPTOLOG format. With the exception of the human labor involved in cutting and pasting these columns onto the page masters, the article was "untouched by human hands.") (TSC)

LETTERS

To the Editor, CRYPTOLOG:

As a twenty-six-plus-year veteran of NSA and its predecessor, AFSA, I just cannot resist commenting on the article "How Not to Make an OB" (CRYPTOLOG, December 1977). Although I have never been a traffic analyst or special research analyst, I am nonetheless motivated to make the following comments.

The intent of the article is obvious, i. e., to hopefully eradicate to some degree the lethargy that may have crept into some of our analysts' daily work habits. I hope that the article is a gross exaggeration; however, I have made the assumption that occurrences similar to the one pantomimed in the article have taken place at NSA with sufficient frequency to prompt the writing of this article. I am appalled at the very thought. If this assumption is correct, we are indeed in a sorry state. Can someone allay my fears and reassure me that we are more professional in these endeavors?

P.S. If some of our consumers read this article, what would be their thinking in terms of the validity of our product?

                                K31

The author of the article replies:

As a twenty-*seven*-plus-year veteran of NSA and its predecessor, I can assure [ ] that the article was based on a real-life incident. It was slightly exaggerated and the names were changed to protect the guilty.

However, [ ] fears may be allayed somewhat by the following facts:

1) The incident happened many years ago -- about 15, as a I recall -- and most of the people involved are no longer involved in Agency reporting.

2) All the sloppy practices described did not involve the listing of just one "Obscenian" officer. The story was a composite with many mistakes being thrown into one OB entry. It's the sort of thing they do on TV when they want to show mismanagement in hospitals. Rather than clutter up the story with a whole lot of characters, they come up with one patient who is suffering from high blood pressure, low blood pressure, prostate trouble, pregnancy complications, chills, fever, and a few other symptoms.

3) The OB in question did not get issued, thanks to the efforts of the checker (but my natural modesty prevents me from telling you who he was).

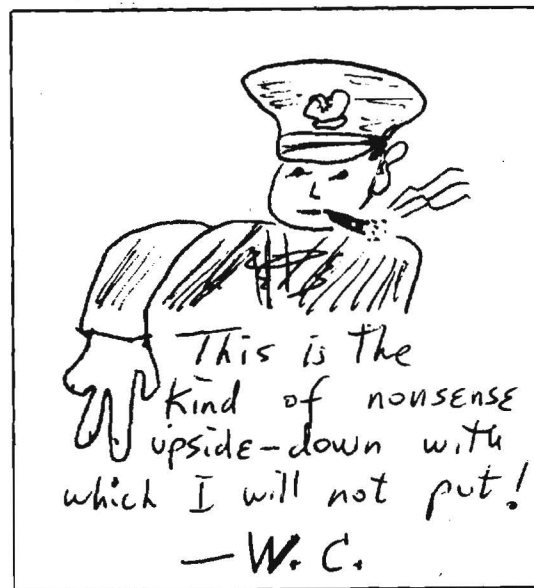   P16   P.L. 86-36
                         (U)

Editor's note:

The following communication, attached to the article "No, Winnie, You've Got It Upside-Down Too!" (CRYPTOLOG, February 1978), appeared recently on the Editor's desk:

This is the kind of nonsense upside-down with which I will not put!
— W. C.

                                   (U)

The Editor's' Page

AN IDEA FOR AN ARTICLE
Doris E. Miller, P16 (RETIRED)

I had to move the apostrophe this month because we're printing something sent in from retirement paradise by our founding editor, Doris E. Miller.

From time to time we send Doris unclassified clippings from CRYPTOLOG, just to let her see how her baby is getting along. Sometimes it's only the picture on the title page of the article, plus the author's name. But occasionally we can send Doris a treat -- a completely unclassified item.

Recently our clippings to Doris included the unclassified letter to the editor that was sent in by[ ]and was printed in the January 1978 issue. It prompted Doris to send me the following letter, with a suggestion for a definitive article (How's this for proof that you can take the girl out of the Agency, but you can't take the Agency out of the girl?). I'm too busy editing to take her up on her suggestion. Instead, I'll just print her letter here and hope that some CRYPTOLOG reader will seize the opportunity. In a way, I feel like Mikey's brothers, pushing the new cereal back and forth, each saying, "No, you try it!" Won't I be pleasantly surprised when someone really "LIKES it!" and does something about it. (Assuming, of course, that the person sends it in to CRYPTOLOG for publication!)

Ed.

W[   ]letter about the relationship between TA and IRA (CRYPTOLOG, January 1978) reminds me of an article I once started to write, called "What Is a Cryptolinguist?" It was in the months just before I retired and I had so many passionate thoughts I wanted to put on paper about the work of the cryptolinguist, and so little time to do it, and I would write at home, far, far into the night, using substitute words and leaving spaces, etc., trying to get it down in shape so that I could work it up finally at the building. Well, it was not to be. I piled up an enormous amount of stuff, some of it very good, I thought, on the whole concept, techniques, philosophy, and ethics of "special intelligence" -- trying to fight through the wilderness we have got lost in and get back to some kind of common sense approach to the work. I had something like 50 pages in varying degrees of eloquence and incoherence when D-Day Eve came around and I simply had to scrap it.

One part of it, though, that I regret not having passed on to you, or somebody, retraced the evolution of the cryptolinguist, that is, our present conception of him (in which I include her, who they mostly is) using as indicators of the various stages the different job titles.

When I came into the Agency you were either a CA or a TA. I was quite astonished at being dubbed a cryptanalyst on the strength of a couple of Dilly's courses, but soon learned that at that time, because the nature of the systems being used, the linguist either picked up some CA or the CA picked up some language: the real distinction was whether you worked with the message externals or internals. Then the systems became more and more mathematical and the solutions more and more independent of linguistic aid; also, when some of the big, big systems broke, lots of linguists were brought in, as a second wave, so to speak, who had no part in breaking them, and they just "exploited" them. Then the Agency began reporting its own scoops, and the linguist became a research analyst. Then the research analysis was separated out (how do you like that for redundancy?) and the linguist became just plain linguists, except that that didn't seem quite right, either, so they became cryptolinguists. (I still remember the State Department interpreter who was so amused at that word -- "cryptolinguist." "What is a cryptolinguist? Is it something like a pseudoliberal?")

P.L. 86-36

So the chronological sequence went something like: Cryptanalyst, Cryptanalyst F/L, Research Analyst F/L, Linguist or Cryptolinguist. This is a steady diminution of the role of the linguist, who is now considered to be neither a cryptologist nor an intelligence analyst, but a kind of simulated translation machine.

P.L. 86-36

This shows a frightening lack of comprehension as to what the linguist actually does, how much nonlinguistic work he does, how much is left to his judgment and discretion that never comes to the attention of other "disciplines" (because the linguist makes the live-or-die decision in his scanning) or is slanted by the linguist's rendition of it, of which the SRA is frequently unable to make an independent judgment. . . Well, here I go again.

I think Agency linguists have made a mistake in emphasizing the intricacies and difficulties of the *languages* (who cares?) and not bringing out the tremendous power the

linguist has in the early (and sometimes the late) stages of processing -- power which is sometimes put into the hands of people who are totally unprepared for it.

Linguists should emphasize their role in producing *intelligence*, not their virtuosity at one -- or 21 -- languages. If they would present it from that angle, which is the only one that butters any parsnips for the Agency, anyway, they might get a better hearing.

Be that as it may, it might make an interesting article. No, I'm sure it would! It might be possible to write -- or get someone to write -- a historical account of the process by which the originally simple dichotomy (always wanted to use that word) of "CA and TA" has been elaborated into our present jungle of specialties.

Where one would find the material, I don't know. Job auditors? People's own personnel files? Position papers?

Wayne's remarks are very much along my line of thinking. He could probably produce a large chunk of such an article. If the idea appeals to you, you can take it from there.

(U)
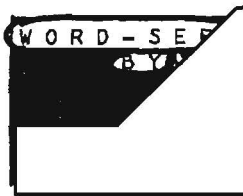
WORD-SEEK ... A254 asks you to find the World War II phonetic alphabet in the Word-Seek below. *(Solution next month.)*

O	H	C	E	R	N	W	O	H	E	M
E	O	E	L	B	A	G	N	I	K	A
M	T	R	C	E	N	G	T	E	I	I
O	E	O	N	Q	V	E	U	F	M	L
R	L	P	U	I	M	O	E	S	O	L
I	X	E	C	H	A	R	L	I	E	I
P	E	T	E	R	A	G	O	D	R	W
N	O	I	S	T	R	E	K	A	B	Q
R	E	G	O	R	B	K	Y	S	A	E
A	I	X	O	F	E	O	B	O	E	N
J	A	P	A	P	Z	Y	A	R	X	K

(U)

SLOW NEWS DAY IN MOSCOW

For the past 60 years, foreign correspondents have always had a dispatch that they could count on whenever there wasn't really anything to report, or whenever it was too cold to go out and take a picture of the old peasant women sweeping up the streets. The dispatch deals with "English words in Russian." The latest in this genre filled a whole column in a recent *New York Times*. The following snippets give you the general idea.
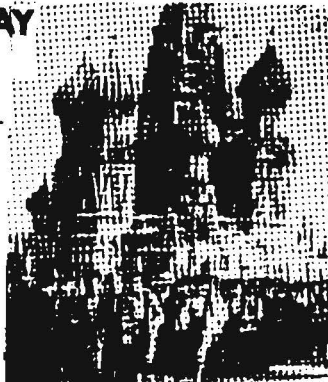
By CRAIG R. WHITNEY
Special to The New York Times

MOSCOW, Sept. 26—The Soviet Union may have resisted ideological contamination from the West so far, but its leaders apparently fear that the Russian language is not doing so well.

There has been so much linguistic "infiltratsiya," according to the cultural editor of the official Soviet youth daily Komsomolskaya Pravda, that the richness of Russian speech is in danger of giving way to facelessness and "standardizatsiya."

"Lenin said that we mar the Russian language by using foreign words unnecessarily," Vladimir V. Vasilyev wrote in a recent issue of the paper. "Isn't it high time to declare war on the torture of Russian tongue?"

they have been for centuries, Russians are fascinated by countries beyond their borders, yet at the same time suspicious and distrustful of all influences—including linguistic ones.

Yet "sportsmen" play pretty fair "khokkei" these days, maybe because their goalkeepers are so good. At basketball, too, their dribbling is remarkable. European futbol (soccer) they have been relegated to outsider the world chempionat, situatsiya has become kriticheskaya...

SEPT. 27, '77

(Slow day in CRYPTOLOG art department: Ever notice how, whenever there's an odd space to fill, it's always a news clipping on Russian?)

(U)

Answer to *puzzle*

(See CRYPTOLOG, February 1978)

The problem was to think of what solid figure (not a squeezable material) could be passed through each of the holes (a circle 2" in diameter, a 2" square, and a triangle with a 2" base and 2" height). At each pass-through, it was to make a completely contiguous fit.
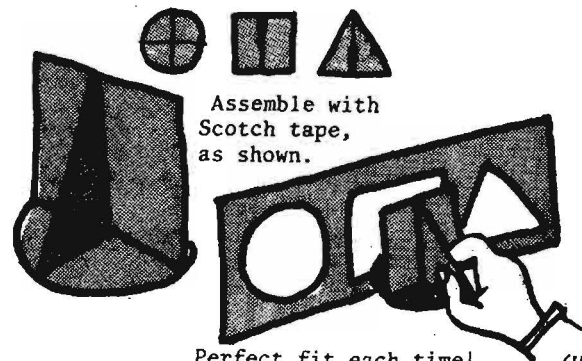
Here's the solution:

Cut the appropriate circle, square, and triangle out of light cardboard.

Draw perpendicular diameters on the circle.

Draw line down middle of square and cut half-way <u>down</u>.

Draw triangle height and cut half-way <u>up</u>.

Assemble with Scotch tape, as shown.

Perfect fit each time! (U)

NSA-crostic No. 12

By A.J.S.

> The quotation on the next page was taken from the published work of an NSA-er. The first letters of the WORDS spell out the author's name and the title of the work.

DEFINITIONS

WORDS

A. Kind of English earthenware (mantlepiece spaniels, etc.)

31 120 81 65 5 73 46 113 181 27 136 100 39

B. Head of a monastery

174 76 53 210 44

C. Songwriter's summary of "Hamlet": "When a ghost and a prince meet, And everyone ends as ----------."

188 118 43 131 58 233 14 205 167

D. When her three boys bought a cattle ranch, she suggested they name it "Focus," because that's where the -------------- (3 wds)

69 1 137 184 164 49 192 161 9 226 45 85 107

E. What Sir Francis Drake was looking for (2 wds)

66 94 196 105 173 146 51 15 212 40 89 195 235 111

29 182

F. Affirmative (colloq)

208 123 32

G. Vessel abandoned on the high seas

203 149 180 129 36 108 59 6

H. Spin

204 193 187 12 114 62 30

I. Attempt to vomit

74 133 16 169 156

J. When told that this was a person's favorite phonograph record, the other person said, "Oh, I didn't know that Ol' Blue Eyes had such a fancy first name!" (3 wds)

23 33 78 189 41 154 90 170 2 177 144 86 64 186

127 216 119

K. Vegetable

153 110 143 54 134

L. Person in charge of entertainment (3 wds)

102 10 141 229 179 213 150 158 17 138 175 199 50 220

38 147 194 47

M. Lastest period of the Tertiary (2 wds)

71 83 28 232 209 3 95 63 34 98 18 219 191

N. Not torn asunder

70 115 22 37 122 103 211

O. South American lake, highest in the world; fifth-grade geography teachers hate to mention it because the rest of the class hour is nothing but giggles and smirks

82 116 91 13 190 60 215 165

P. Ancient sculptures taken from Athens to England in 1806; now in British Museum (the Greeks want 'em back!) (2 wds)

139 92 224 121 151 19 77 11 125 142 96 67

Q. Vegetable melange

231 223 178 214 117 4 55 185 171 207 84

UNCLASSIFIED

R. Wild goat of Europe and Asia

$\overline{159}$ $\overline{57}$ $\overline{217}$ $\overline{97}$

S. Refusal

$\overline{130}$ $\overline{109}$ $\overline{228}$ $\overline{25}$ $\overline{48}$ $\overline{166}$ $\overline{8}$ $\overline{88}$ $\overline{87}$ $\overline{106}$ $\overline{218}$ $\overline{172}$ $\overline{197}$

T. One helluva good poet (2 wds)

$\overline{35}$ $\overline{236}$ $\overline{112}$ $\overline{162}$ $\overline{145}$ $\overline{176}$ $\overline{26}$ $\overline{200}$ $\overline{135}$ $\overline{7}$ $\overline{168}$ $\overline{227}$ $\overline{206}$

$\overline{42}$

U. Large indeterminate number

$\overline{221}$ $\overline{20}$ $\overline{163}$ $\overline{75}$ $\overline{202}$ $\overline{79}$ $\overline{104}$

V. Fiddle-maker

$\overline{124}$ $\overline{155}$ $\overline{222}$ $\overline{52}$ $\overline{80}$ $\overline{101}$ $\overline{201}$ $\overline{68}$ $\overline{160}$ $\overline{24}$ $\overline{61}$ $\overline{148}$

W. Make lukewarm

$\overline{56}$ $\overline{99}$ $\overline{72}$ $\overline{225}$ $\overline{230}$ $\overline{126}$

X. Last nine years (1811-1820) of the reign of George III

$\overline{140}$ $\overline{157}$ $\overline{128}$ $\overline{152}$ $\overline{234}$ $\overline{198}$ $\overline{93}$

Y. Oriental monetary unit

$\overline{132}$ $\overline{21}$ $\overline{183}$

1 D	2 J	3 M		4 Q	5 A		6 G	7 T	8 S		9 D	10 L	11 P	12 H	13 O
14 C	15 E	16 I		17 L	18 M	19 P	20 U	21 Y	22 N	23 J	24 V	25 S	26 T		27 A
28 M	29 E	30 H	—	31 A	32 F	33 J	34 M	35 T		36 G	37 N	38 L	39 A		40 E
41 J	42 T	43 C	44 B	45 D	46 A	47 L		48 S	49 D	50 L	51 E		52 V	53 B	54 K
55 Q	56 W		57 R	58 C	59 G	60 O	61 V	62 H	63 M		64 J	65 A		66 E	67 P
68 V		69 D	70 N	71 M	72 W	73 A	74 I	75 U		76 B	77 P	78 J	79 U	80 V	
81 A	82 O		83 M	84 Q	85 D	86 J	87 S		88 S	89 E	90 J	91 O	92 P	93 X	
94 E	95 M		96 P	97 R	98 M	99 W	100 A	101 V	102 L	103 N	104 U	105 E	106 S	107 D	108 G
109 S	110 K		111 E	112 T	113 A		114 H	115 N	116 O	117 Q	118 C	119 J	120 A	121 P	122 N
123 F	124 V		125 P	126 W		127 J	128 X	129 G	130 S	131 C	132 Y		133 I	134 K	135 T
136 A	137 D	138 L	139 P	140 X	141 L		142 P	143 K	144 J	145 T	146 E	147 L	148 V	149 G	
150 L	151 P	152 X		153 K	154 J		155 V	156 I	157 X		158 L	159 R	160 V	161 D	162 T
	163 U	164 D	165 O	166 S	167 C	168 T	169 I	170 J	171 Q		172 S	173 E	174 B	175 L	176 T
177 J	178 Q	179 L	180 G	—	181 A	182 E	183 Y	184 D	185 Q	186 J	187 H		188 C	189 J	190 O
191 M	192 D	193 H	194 L	195 E		196 E	197 S	198 X	199 L	200 T	201 V	202 U	203 G		204 H
205 C	206 T	207 Q	208 F		209 M	210 B	211 N	212 E	213 L	214 Q	215 O	216 J		217 R	218 S
219 M	220 L	221 U	222 V	223 Q	224 P	225 W	226 D	227 T	228 S	229 L		230 W	231 Q	232 M	233 C
	234 X	235 E	236 T												A.J.S.

(Solution next month.)

UNCLASSIFIED

News of the Crypto-Linguistic Association

☑ **Yes**

☐ **No**

Yes, Jack Gurin, R5, is obviously the winner in CLA's informal "Think of the Longest Title for Your CLA Lecture, Just So Long as You Give the Lecture!" contest. The title is:

"I Was Just a Middle-Aged Polyglot Until I Discovered Transformational Grammar: Or, A Layman!s Guide to the Mysteries of Linguistics."

Time and place: Wednesday, 22 March 1978
0930 hours, Friedman Auditorium

All are welcome! (U)

News of the Communications Analysis Association

☐ **Yes**

☑ **No**

No, you don't *have* to be a member of CAA, but it makes it easier for you to get the word.

Like, did you get to hear ▮▮▮▮▮ briefing on that ▮▮▮▮▮▮▮▮▮▮ system, how they got into the solution, and what great things the solution has done for the problem? You say you didn't get the word?

How about the CAA's Special Interest Group on Cryptologic History? Does that tickle your fancy? Are you an older hand who just wants to get it all down on paper and set the record straight? Have you just read *The ULTRA Secret* and are you just burning to write a classified rebuttal to appear in CRYPTOLOG? Or are you one of the younger ones who's tired of hearing about the "good old days" and who wants to go look for yourself at what *really* happened? Well, the meetings of the Special Interest Group are open to everyone, but. . .

Maybe you've heard a rumor that the CAA is working on a proposal for a Communications Analyst, but you're having trouble tracking down who, when, where, so you can go and give them your two cents' worth.

Or you might have an idea for a different kind of Special Interest Group, but you don't know who to see or how to get it started. If it crosses skill/discipline lines (and don't they all anymore?), maybe you're thinking about asking the CAA for help, but you never seem to know who we are, which of us is interested in what, and where we hang our hats.

Yes, Penelope, there *is* a CAA and it has a lot of things going on -- all aimed at promoting growth and professionalism among communica-tions analysts. But the reason you're not hearing about these things until too late is that you're not on our mailing list. And the reason for *that* is, you haven't joined. And if you have been sitting there smiling, saying, "I'm OK, I'm already a member!", you better check your membership card. If it says "1977," then I'm talking to you too.

Wait a minute! What does *my* card say? Hmmm! Can somebody lend me a dollar?

W.E.S. ~~(SC)~~

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

P.L. 86-36
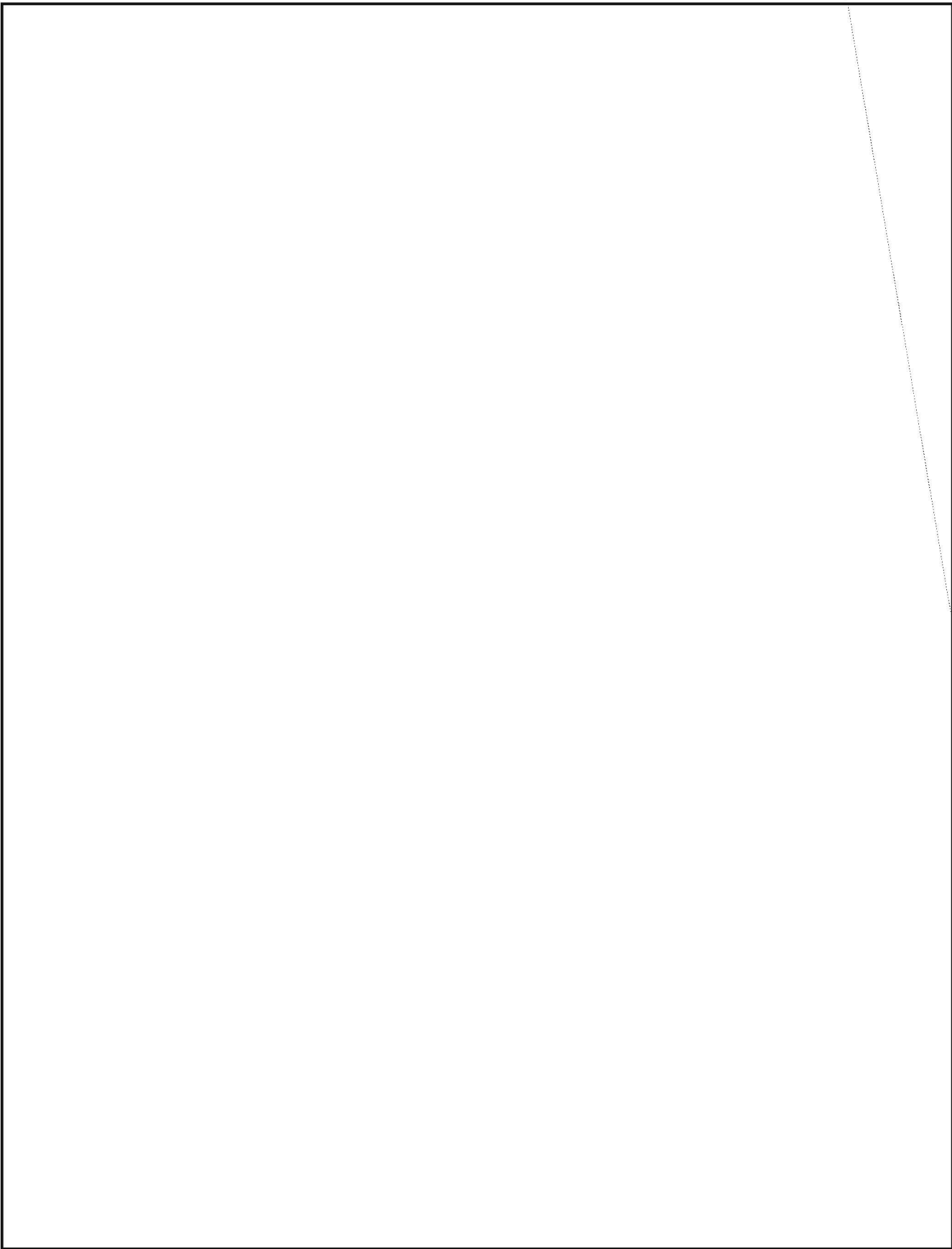
Communications Analysis Association:	
David Gaddy, President	3247s
▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮	1139s
Timothy Murphy	3791s
	8025s
	5991s
	3573s
	3369s
	3500s

[1]Appointed to serve for the remainder of the term of ▮▮▮▮▮▮▮▮ USN, who has resigned as Board Member.
[2]New appointment (U)

✳ Space reserved for CAA logo (see CRYPTOLOG, January 1978, p. 7)
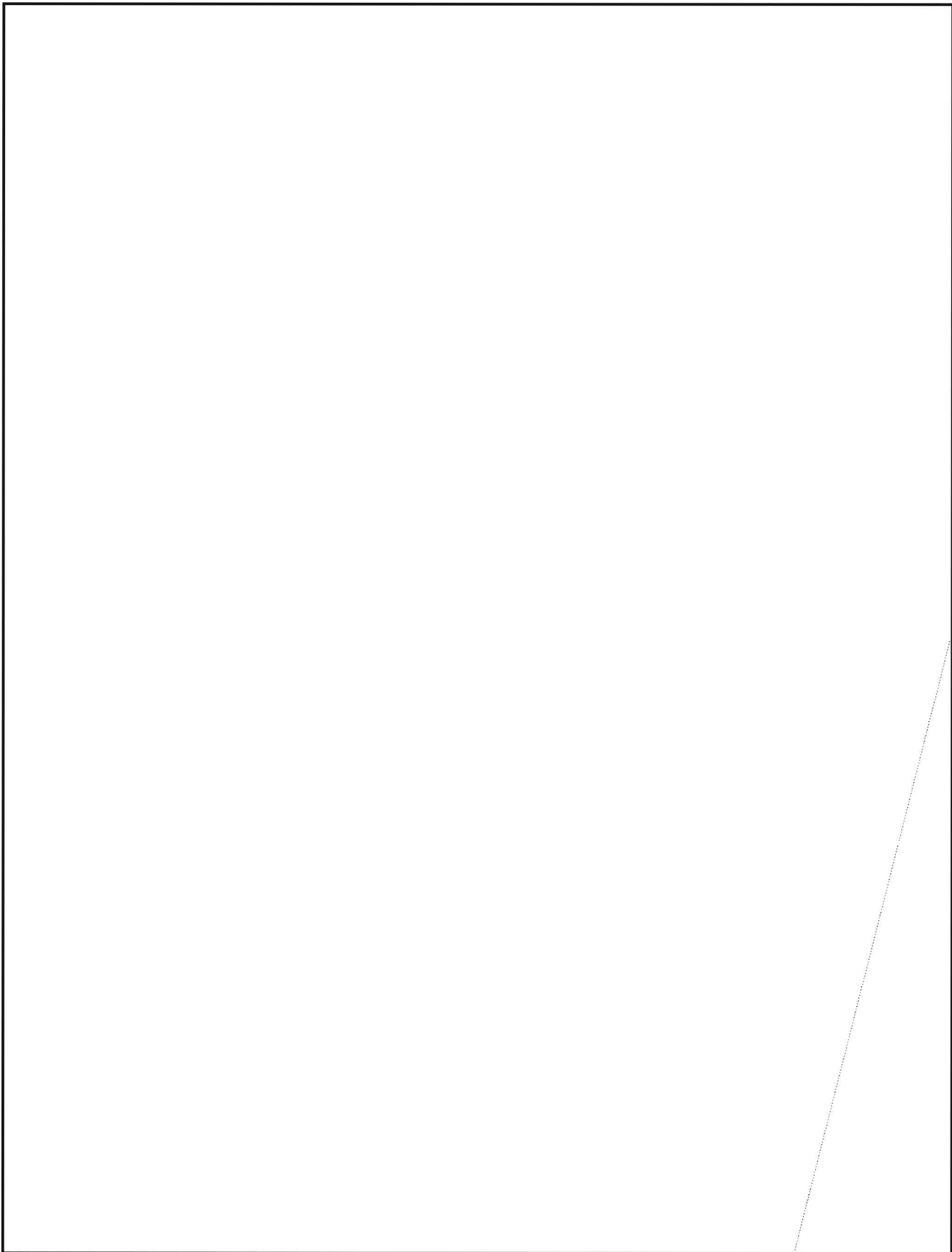
EO 1.4.(c)
P.L. 86-36
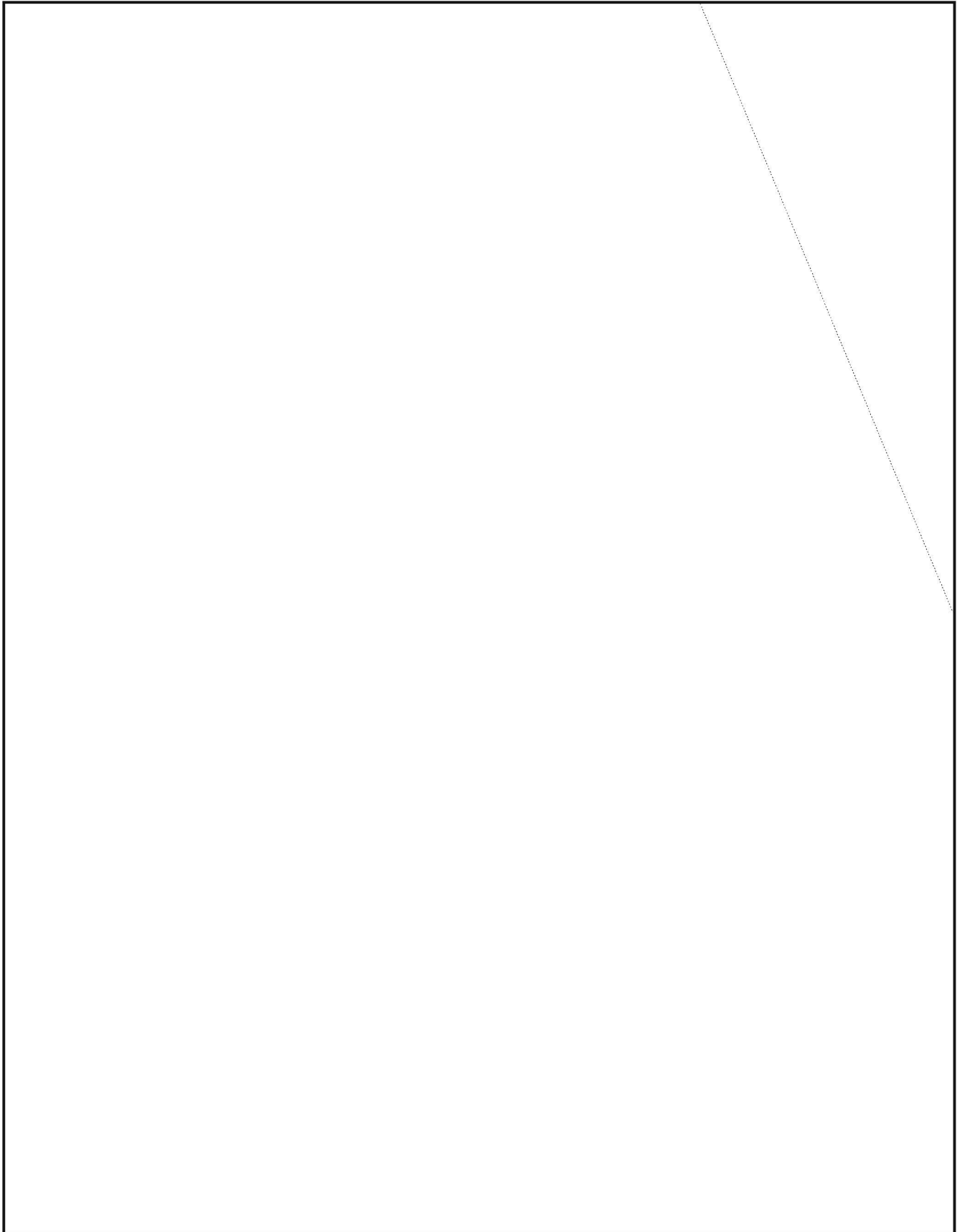
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P.L. 86-36

SECRET SPOKE

SECRET SPOKE

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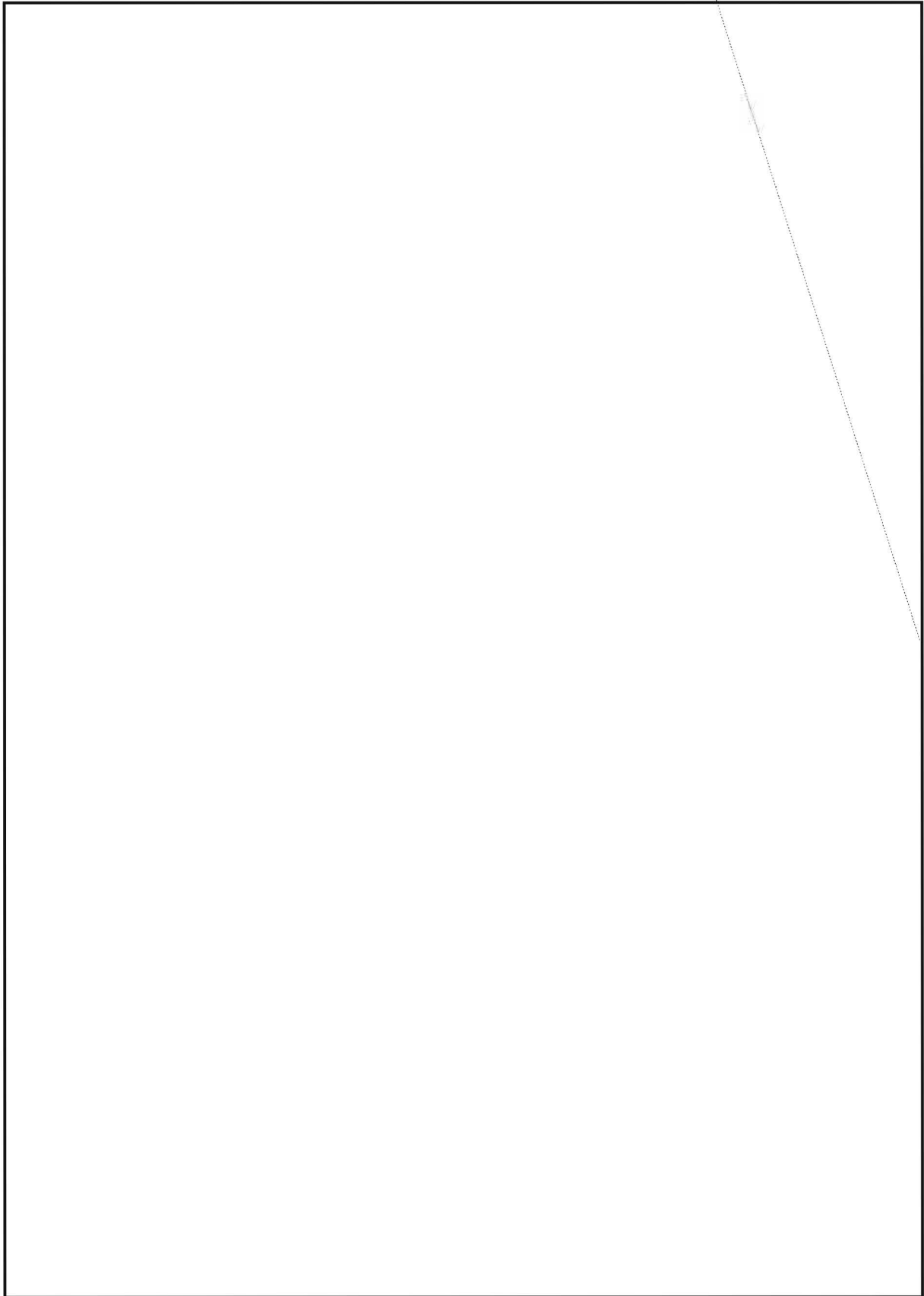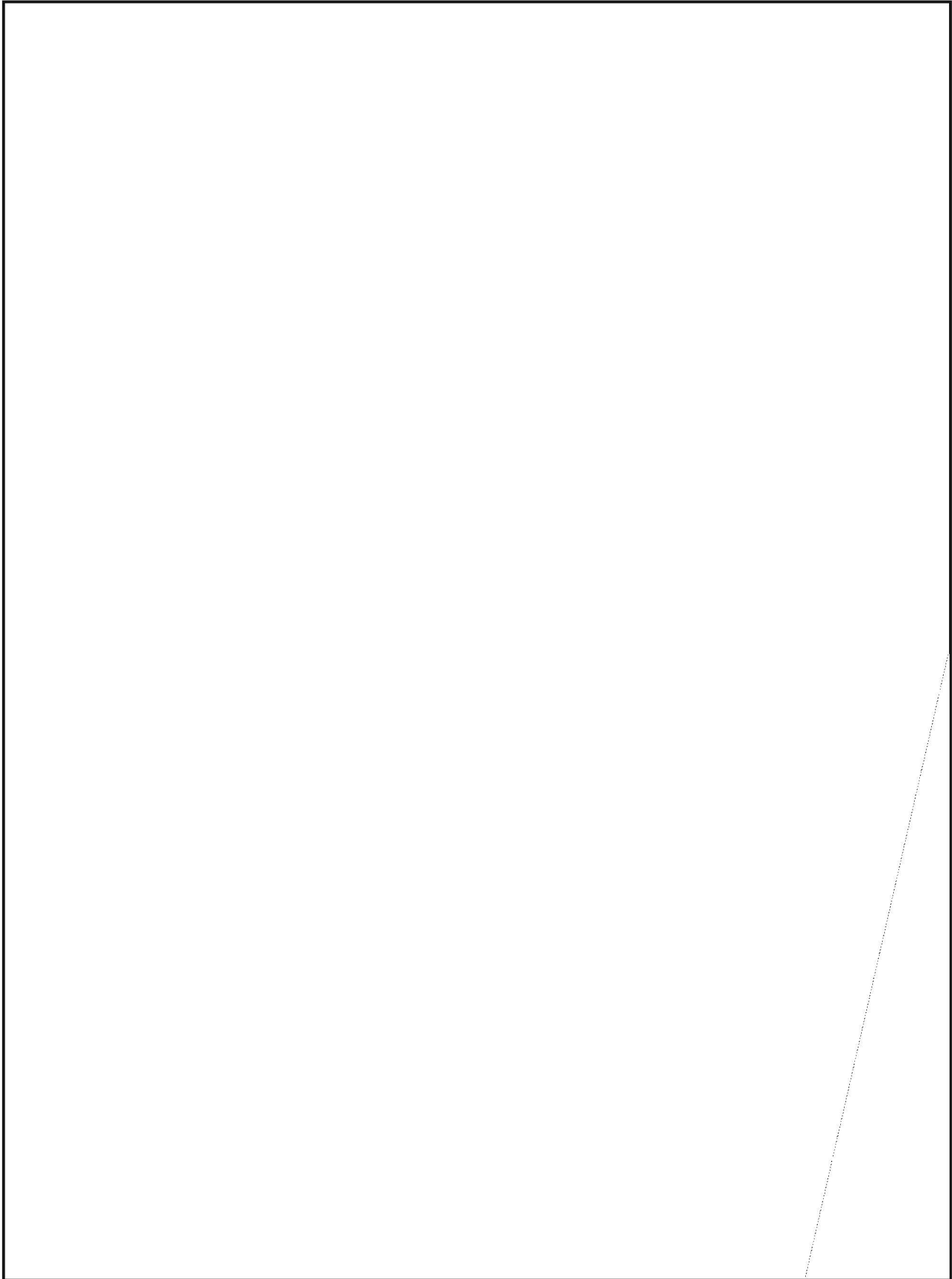
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P.L. 86-36

EO 1.4.(c)
P.L. 86-36
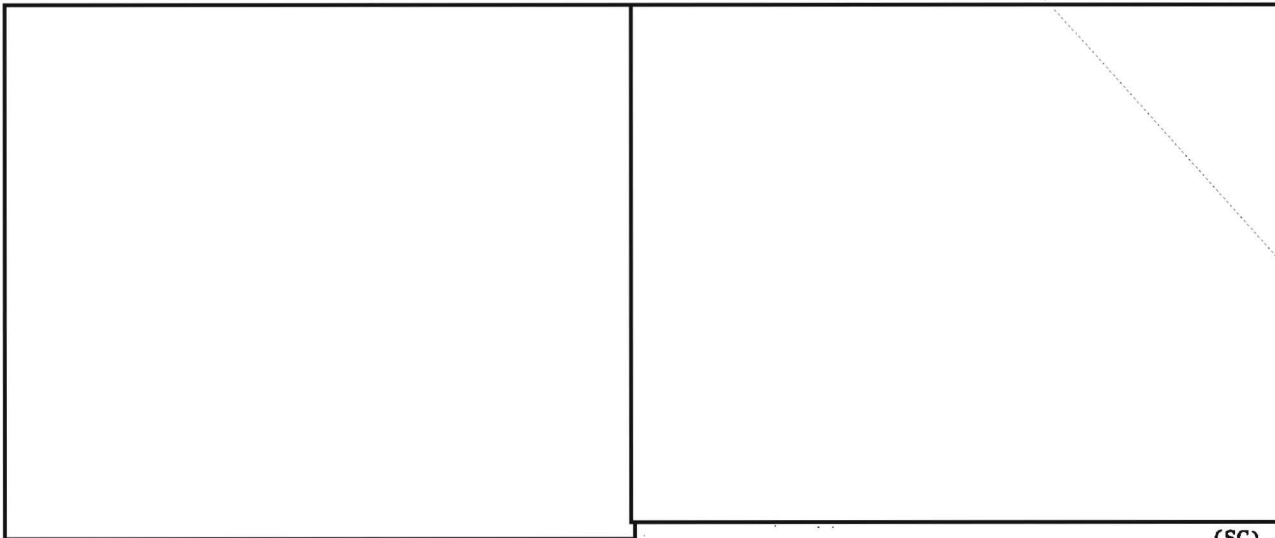
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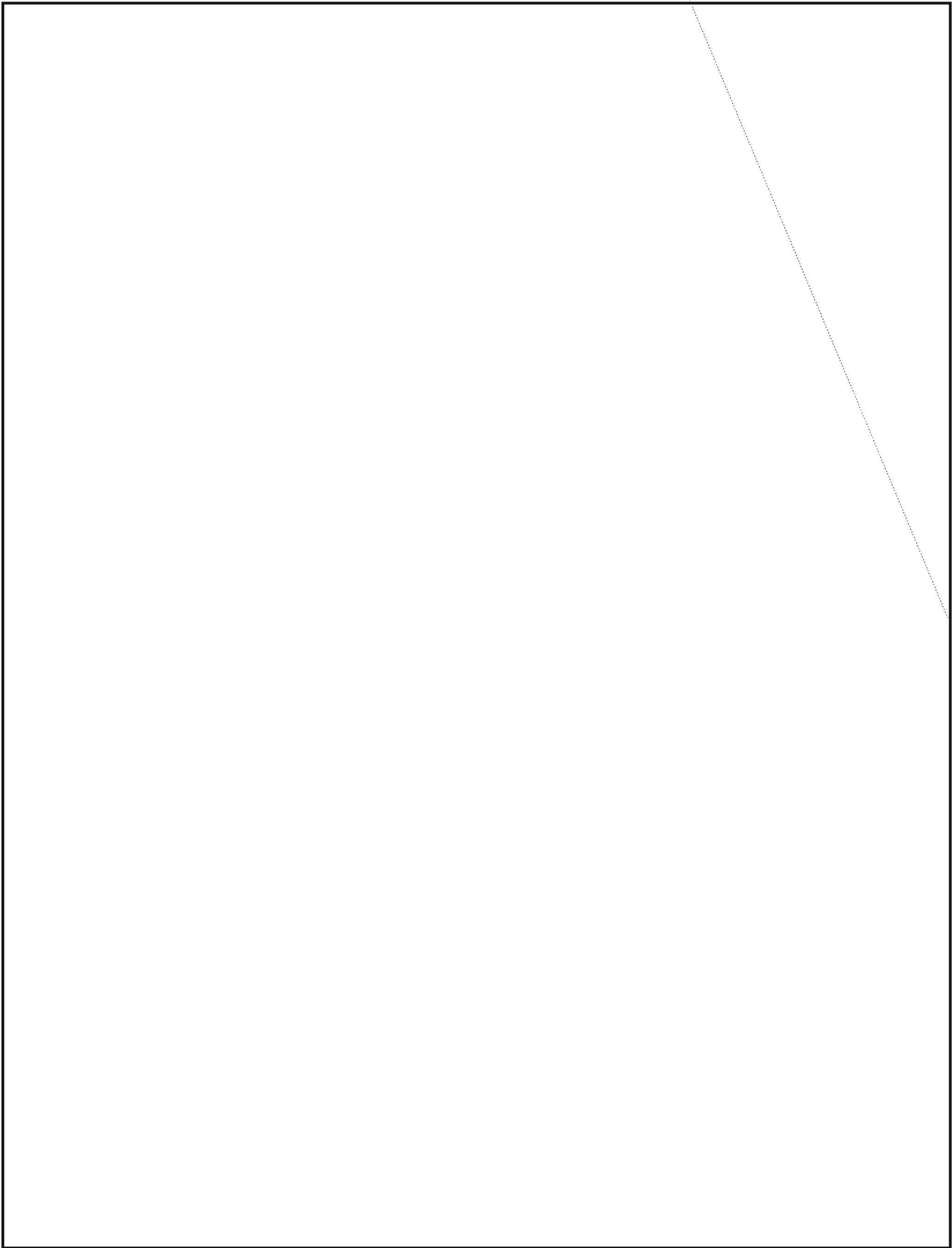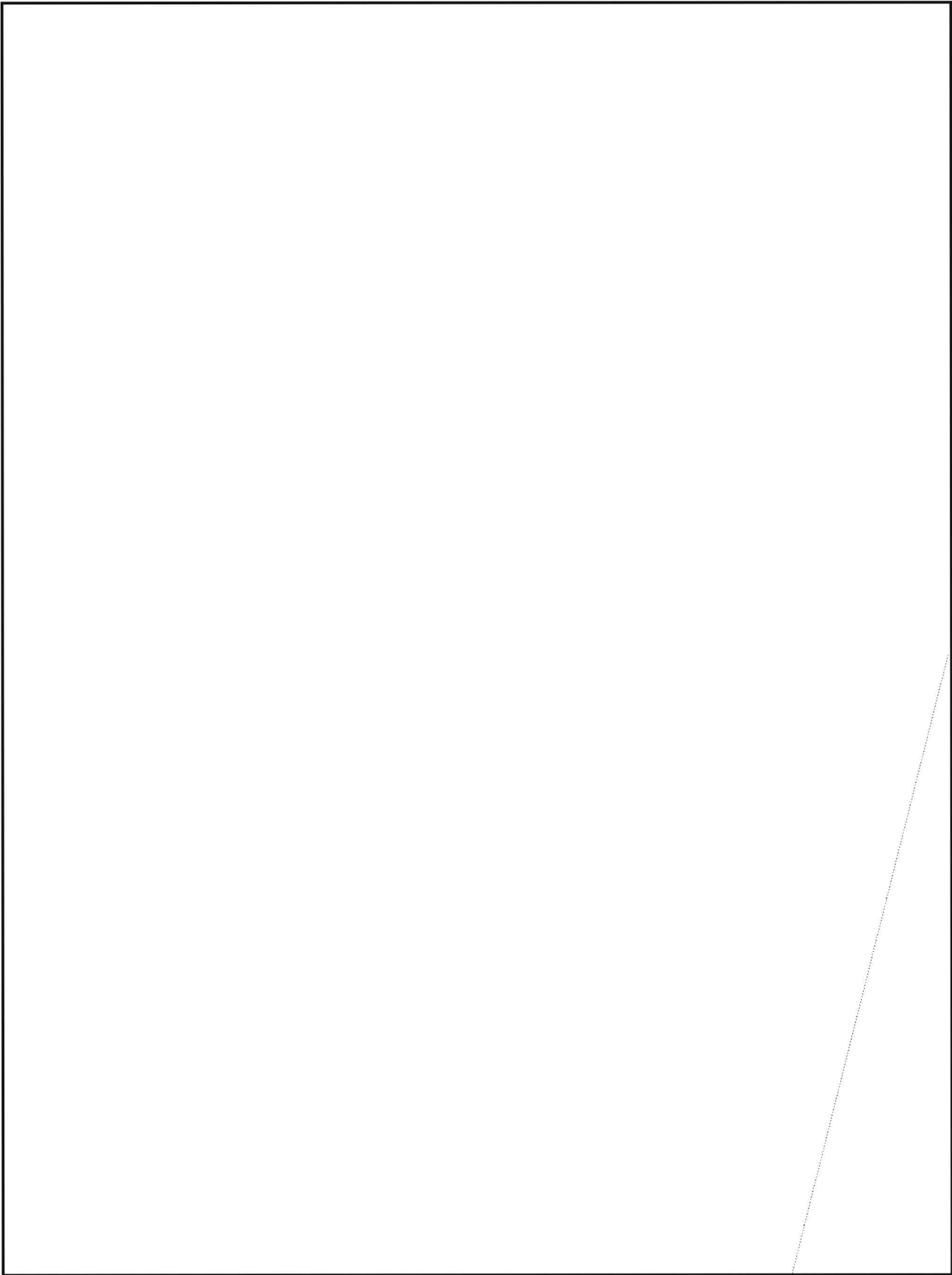
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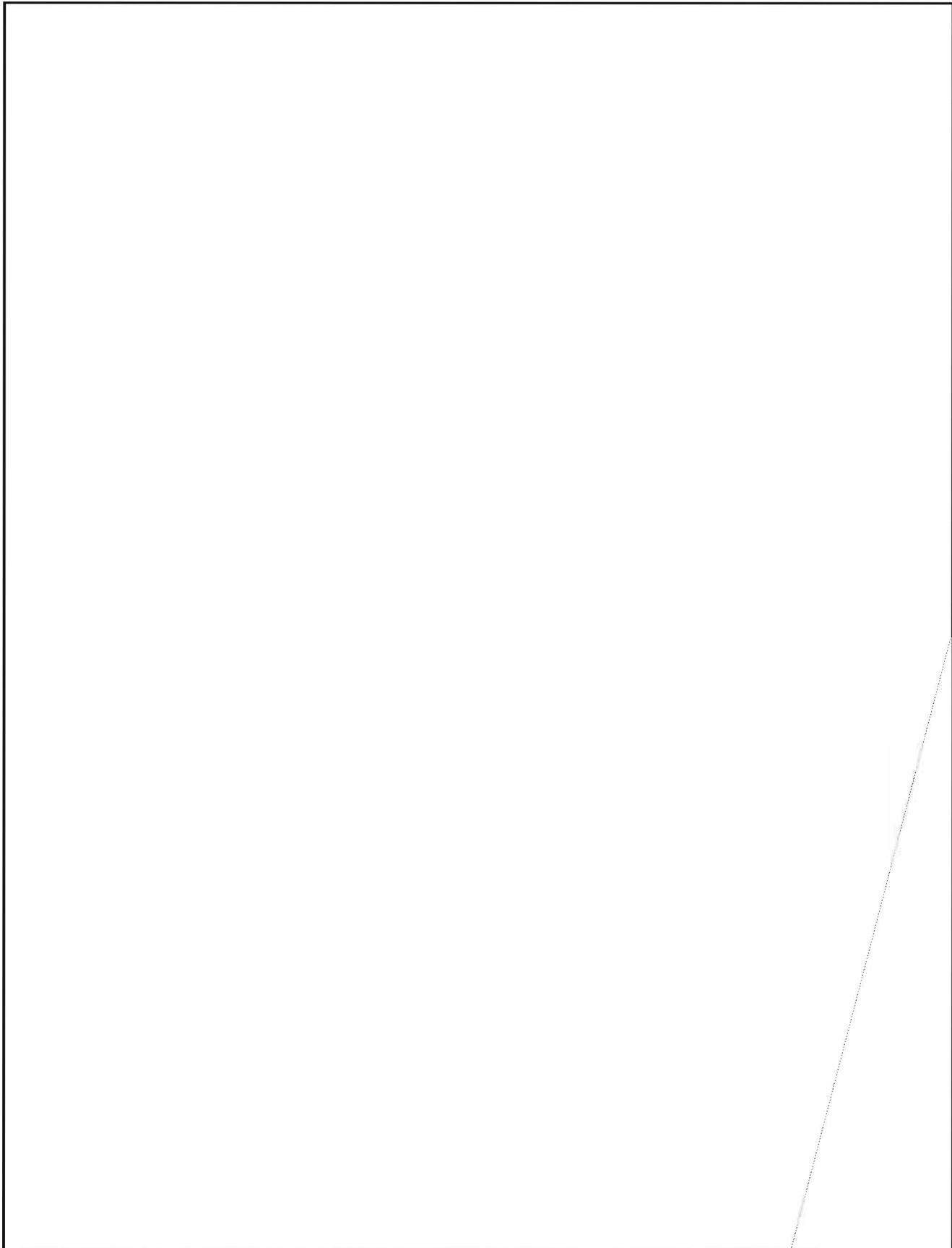
A PROPOSED CURE FOR THE "PERFORMANCE SYNDROME"

The following is submitted in rebuttal to [_____] article, "A Proposed Cure for the Time-in-Grade Syndrome" (CRYPTOLOG, November 1977). To paraphrase the article, [_____] suggested that too much attention is paid to an employee's time in grade, that the primary factors for promotion should be performance and capability to perform at the next level (potential), and that, to offset charges of discrimination, promotion boards should not be given employee's names, but only arbitrary numbers. He further suggested that jobs not be limited to certain grades, but geared to performance/potential.

Well, I find [_____] article a mixture of fact and fancy. The fact part is based on his own experiences and the fancy is based on what sounds like extracts from a book on labor relations. It has been my own experience that each manager has his own pet criteria for promotions. If he has had to wait a long time for a promotion, he probably favors time in grade. If he has gotten his promotions fairly fast, he probably favors performance. If he has been held up for a promotion because of professionalization, he probably thinks the program is a waste of time. If his boss doesn't believe in giving outstandings, he probably doesn't want performance to count too much. If his boss has a forceful personality and likes him, he probably does want performance to count. If he doesn't have a degree himself, he probably has a low opinion of the value of a college education. People with several degrees are sometimes called "professional students";

people with several professionalizations are often referred to as "jack of all trades"; people with a lot of experience in several areas must always reestablish themselves in each new area.

The reason so many views are possible is that NSA does not have a definitive (prioritized and objective) set of criteria for promotions. Without such objectively measurable criteria, "performance" has often become a personality contest, a case of who-you-know, who-you-like, and not a real test of a person's productivity. Time-in-grade advocates are that way only because the performance advocates have abused the system.

Finally, it may surprise [_____] to know I fully accept his "cure" for the time-in-grade syndrome; it is the same cure that is needed for the current performance syndrome. That is, I fully accept promotion boards being required to judge a candidate on the basis of the records and not on how well they personally know the person or how forceful their supervisor is, compared to others present. It may also surprise [_____] when he finds most of the objectors to this plan are performance advocates.
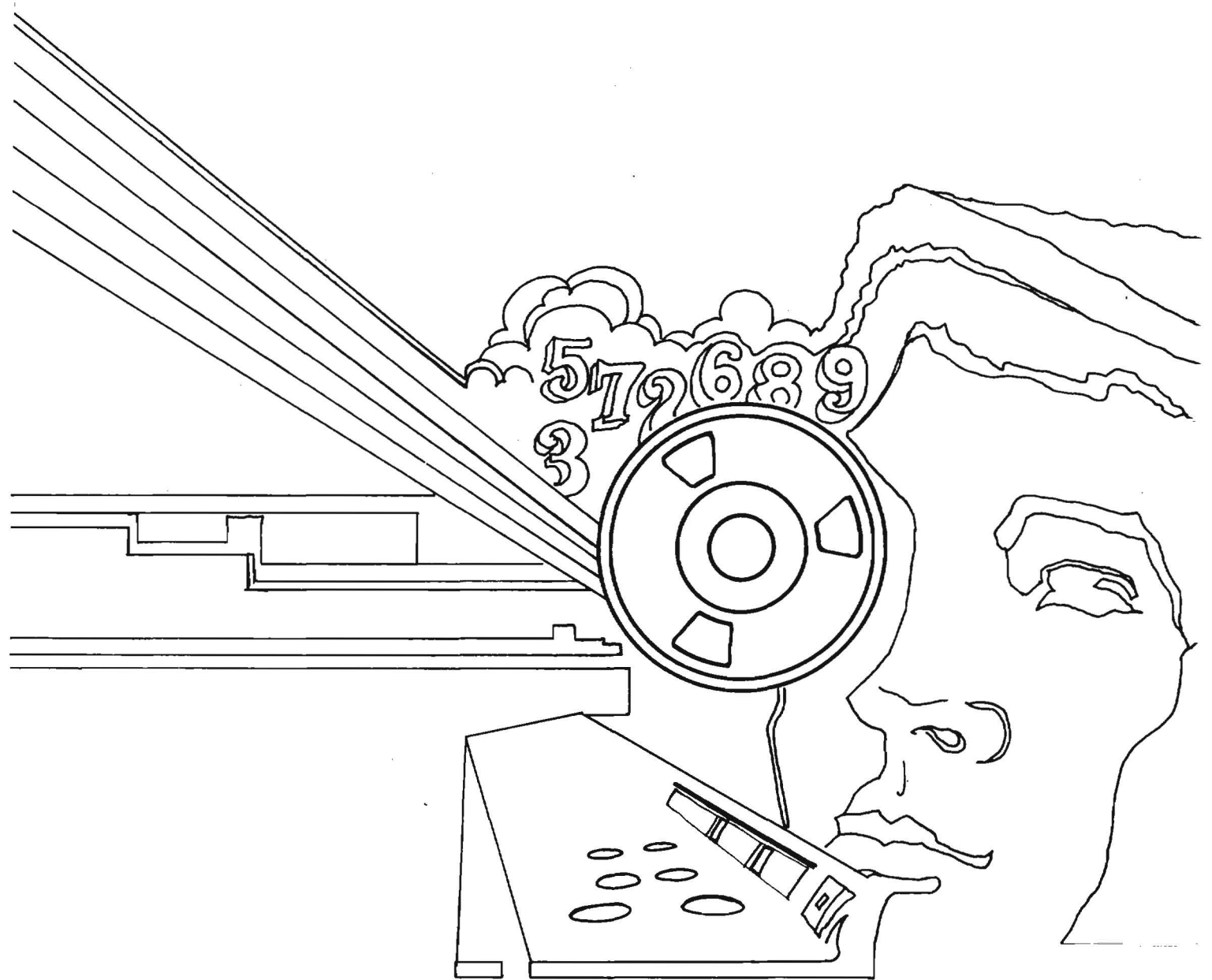
By the way. . . Hi, George! This is

[_____]

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