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CRYPTOLOG

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Editor, CRYPTOLOG, P1

If you used a word processor, please include the mag card, floppy or diskette along with your hard copy, with a notation as to what equipment and what software you used.

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Editorial

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Many years ago P16 was issued an experimental model of a manual typewriter to try out. But before it could go into production, it was overtaken by another technical advance -- the electric typewriter with changeable "golf ball" fonts and a correcting ribbon.

We still have that manual typewriter. It has come in handy during our many moves, for we usually arrive at our new place before the electricians can do their thing. And it's more than a simple back-up to an impressive array of word processors. Among the many useful features is the provision for adjusting spacing, which makes it ideal for filling out forms. It's better for that chore than any other machine around. Best of all, it's just the thing for writing first drafts. It's as good as a sharp #1 pencil on a yellow pad, and faster. Moreover, there's something about the configuration of the machine and its neat design that compels clarity of thought and precision in the use of words.

A similar kind of technical advance has affected CRYPTOLOG. The Xerox Star has come along with some desirable features that make it especially appropriate for a periodical. The principal ones are the large variety of font styles and sizes, automatic paper feed, and graphics. No longer will we have to cut and paste because only one font (of the two available) can be printed at a time. And no longer will we have to feed in single sheets by hand, ever so carefully, one at a time.

The "we" in this case has been [ ] to whom warmest thanks are due for continuing support to CRYPTOLOG in many important ways not apparent to readers.

As you might guess, in leaving BARDOLPH and the UNIX editor we will be doing without a nice feature or two. Alas, we'll be without automatic hyphenation and a spell check.. And so, back to ragged rights, just like the earlier issues of CRYPTOLOG which were typed.

FINDING A HOME FOR AFSA 1949-1952

or,

Why We Don't Have Bluegrass in Front of the

Building and Mint Juleps in the Dining Parlour

Q42

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This article is classified CONFIDENTIAL in its entirety

Although the "who" and "when" questions about the decision to locate NSA's predecessor, the Armed Forces Security Agency (AFSA), at Fort Meade are generally known, the "why" and "how" are somewhat vague. This account of the decision is based entirely on minutes of the meetings of the AFSA Council (AFSAC) from 1949 through 1952.

The question of location was a priority agenda item for AFSAC as early as the Council's initial meeting in July 1949. At that time, AFSA was operating in run-down buildings at Arlington Hall Station (AHS). There were really two questions -- where to locate AFSA's permanent headquarters, and what to do about AHS in the meantime. In the fall of 1949 the Army was prepared to release $12 million for a new building at AHS, but some AFSAC members, dissatisfied with the existing location, feared that taking money for new construction or rehabilitation there would jeopardize funding for future new construction elsewhere.

At the January 1950 meeting, Army Assistant Chief of Staff for Intelligence, Major General Irwin, reported that rehabilitating AHS to reasonable standards of fire and structural safety would cost $2.5 million, including air conditioning, considered necessary in order not to disrupt vitally important work during the summer months. The estimate for a new building there was $9.5 million, and General Irwin expressed the hope that the $7 million difference could be allocated for building a new headquarters away from Washington. The January session produced the following consensus: "No new

construction should be requested for COMINT activities in the Washington area at this time. This should not operate to prevent the rehabilitation and maintenance of existing structures recognized to be necessary. An operational cryptologic nucleus should be established at a site outside the Washington area as soon as possible."

In discussing whether or not to leave any functions in the Washington area, Army Security Agency Director Brigadier General Clarke stated his belief that there would be no need for any activity in the Washington area except for liaison and dissemination. The meeting ended with the Council agreeing to leave the determination of the character of the cryptologic unit remaining in Washington to the future, while concentrating on establishing the new headquarters away from Washington.

At the April 1950 AFSAC meeting, each service was asked to nominate one representative to an ad hoc Site Selection Board which was to recommend a location for the new headquarters. The main motive for moving away from Washington was, of course, the fear that Washington would be a primary target in a nuclear war.. Although little was known at the time about Soviet delivery capability, the shock from the first Soviet nuclear test in September 1949 was still reverberating through the corridors of the Pentagon. The Site Board's task was to find a location far enough away from Washington for safety, but not so far away as to make coordination difficult.

The Board's rather voluminous report, AFSAC 59/6, was delivered to the members at the November 1950 meeting. As recommended locations close to Washington the Board had listed Fort Belvoir, Fort Holabird, Fort

Meade, and Andrews Air Force Base (AFB). Thirty-two other sites, primarily military bases and arsenals, were listed, in Colorado, Georgia, Indiana, Kentucky, Missouri, North Carolina, Ohio, Oklahoma, and Texas. The top three, in priority order, were the Kansas City Records Center, Air Force Plant Number 3 in Tulsa, and the St. Louis Administration Center. The report conceded that the distance of all of these from the seat of government is such that it would probably more or less adversely affect the efficiency of AFSA operations. The only two sites on the list within a 350-mile distance from Washington as well as a safe distance inland were Fort Belvoir and Fort Meade. It was the opinion of the Board that the Fort Meade site was the more suitable of these two, being at a greater distance (25 miles) from the Washington metropolitan area, and 15 miles from Baltimore. The report pointed out that the AFSA headquarters would probably constitute a priority target by itself wherever it was located, and asked rhetorically, "Who can say that Baltimore is more likely to be bombed than Kansas City?"

Admiral Stone, as AFSAC Chairman and AFSA Director, then threw the issue out for discussion. Major General Bolling, who by that time had replaced General Irwin as Army Assistant Chief of Staff for Intelligence, wondered whether Bainbridge, Maryland, had been considered. Air Force Director of Intelligence Major General Cabell viewed it unwise to locate so close to prime targets such as Baltimore or Kansas City. He suggested locating near a "cultural or non-industrial" city -- perhaps "on the prairie." General Bolling suggested Fort Francis Warren in Cheyenne, Wyoming (now, ironically, a Minuteman missile base). Admiral Stone pointed out that locating at a remote site without facilities, like Cheyenne, would greatly increase construction costs. General Cabell characterized the threat to such a site as three-fold: air attack, sabotage, and submarine-launched missiles; very prescient for 1950! He described Fort Meade as vulnerable to all three, while Kansas City would be especially susceptible to sabotage. The discussion rambled on in an inconclusive fashion, as one member after another mentioned Birmingham, Alabama, Chambersburg Pennsylvania, Hagerstown and Frederick in Maryland, and Fort McClellan, Arkansas. When pressed to characterize the ideal site, Admiral Stone described it as within a 350-mile radius from Washington, roughly a day's travel. Not only did the meeting end without a decision about the site, but the Council decided to go back and re-examine the criteria and methodology used by the Board.

At the February 1951 meeting Air Force Security Service Director Brigadier General Lynn presented a paper with two lists. The first listed sites where adequate facilities already existed: the Kansas City Records Center, the Air Force Plant in Tulsa, and a Quartermaster depot in Charlotte, North Carolina. The "no facilities" list included Fort Knox, Lockbourne AFB in Ohio, Fort Benjamin Harrison in Indianapolis, Brooks (now Goodfellow) AFB in Texas, and the Rocky Mountain

Arsenal in Denver. The first three on the second list were quickly eliminated: Kansas City as "too fat" a target, and Tulsa and Charlotte because those facilities had been committed to military production for the Korean War. General Lynn described Fort Knox as the best of the "no facilities" installations. General Bolling wondered why Cheyenne had been omitted, and was told that the population base was too small to supply a civilian workforce. General Lynn suggested a vote, and, according to the minutes of that meeting, AFSAC approved Fort Knox as a suitable site for locating the major cryptologic establishment (AFSA) outside the Washington area, and authorized the Director of AFSA to draw up a paper for the Joint Chiefs of Staff (JCS) containing recommendations in accordance with the Council's decision. The target date for the move was established as 1955

The decision seemed to have been made, but the members were called back for a meeting on 26 February to receive some unpleasant news: that decision was not acceptable; the JCS had rejected their choice of Fort Knox and instructed them to come up with a new list of three sites in priority order. Admiral Stone suggested Brooks AFB, Lockbourne AFB, and again, Fort Knox, and also asked for additional suggestions. This time the discussion centered on the availability of a suitable civilian workforce. The AFSAC's own paper recommending Fort Knox had listed its distance from Louisville (20 miles) as its biggest disadvantage. (Given the distances that most NSAers commute to and from work , it is interesting to note AFSAC's fear that employees wouldn't be willing to travel 20 miles from the closest major city.) Navy Captain Dyer, the Site Board Chairman, reported having been informed by personnel officers in Hagerstown that Fairchild Industries was able to draw its workforce from a 50-mile radius. Admiral Redman said that if AFSA moved to Brooks AFB, the headquarters of the Air Force Security Service, it would be "like the mountain going to Mohammed." After more discussion, it was decided that AFSAC would recommend that the JCS choose from among Brooks AFB, Lockbourne AFB, and Fort Knox. The papers also contained a subtle element of an ultimatum: should none of these three be acceptable to the JCS, there would be no alternative but to purchase non-government land in a suitable location, at considerable expense and delay. This was forwarded to the JCS in the form of AFSAC 59/23.

At the March meeting Admiral Stone informed the body that since the Air Force had decided upon other plans for Lockbourne AFB, it would be necessary to come up with a new third choice for the JCS to choose from. He suggested the following new priority list: Fort Knox, Brooks AFB, and Fort Meade. He mentioned that "someone" had suggested that locating in Florida would solve the problem of attracting a civilian workforce, but didn't believe that Florida would meet the other criteria. General Cabell criticized Fort Meade as "too vulnerable," and General Lynn induced Admiral Stone to state that the primary reason for leaving the Washington area was to

reduce vulnerability. The Army went on record as opposing Fort Meade and favoring Fort Benjamin Harrison as the new third choice, but the Army representatives were outvoted. Even though the JCS had asked for three locations in priority order, the paper recommended Fort Knox as first choice and listed four second choices in no particular order of preference: Brooks AFB, Fort Benjamin Harrison, Fort Meade, and Rocky Mountain Arsenal. This time it stuck, and, on 10 April 1951, Secretary of Defense Robert Lovett approved Fort Knox as the permanent site for AFSA.

How that decision came to be cancelled eight months later cannot be completely explained from the AFSAC meeting minutes. On 7 December 1951 General Canine, the new AFSA director and AFSAC chairman, was asked for his views on the move by Deputy Secretary of Defense Foster. General Canine told Secretary Foster that he was concerned about AFSA's ability to operate "so far removed" from its recipient agencies. He also expressed fears about serious personnel losses. He conveyed the same views to JCS Chairman General Omar Bradley, who suggested that General Canine accompany him to a special JCS meeting. General Canine asked for time to convene AFSAC first.

General Canine called for a meeting on 11 December, at which he announced his preference for rescinding the AFSAC/JCS decision to relocate to Fort Knox. He argued that AFSA should stay within commuting distance of Washington from the standpoint of service to the recipient agencies and the Services. He also stressed the personnel factor. He stated, "There can be no substitute for experience, and one good man is worth 100 mediocre people, and one exceptional person is equivalent to five good people."

There still remained the issue of vulnerability, however. Admiral Johnson, the navy representative to AFSAC, recalled that the original JCS tasking suggested the establishment of a backup facility away from the Washington area, rather than moving the entire headquarters. Several suggestions were put forth for a backup location: Brooks AFB, the United Kingdom, and even a ship in the Atlantic Ocean. Eventually AFSAC agreed to recommend to the JCS that the Fort Knox decision be rescinded and that AFSA be relocated "within the dispersal area of Washington D.C.," defined as that area within a 20-mile radius of Washington. No recommendation was made regarding a backup location.

General Canine gave basically the same story to a special JCS session on 12 December, and the Secretary of Defense directed him to select a new site. This time, the Site Board selected Fort Meade, and AFSAC concurred with this recommendation at its 36th meeting on 23 January 1952. General Canine told the Council that, based on his informal discussions with "various civilians",

he didn't anticipate any serious personnel losses in moving from AHS to Fort Meade.

What turned the JCS around between April and December 1951? A recent (unclassified) book attributed the switch to a "near-mutiny among the agency's civilian work force," but that would seem to be an oversimplification; opposition by Washington-area COMINT customers was probably the most important factor. Deputy Secretary of Defense Foster told General Canine in their 7 December conversation that "some alumni" of AFSA, after reading the recently announced plans to move AFSA to Fort Knox, had prompted some rather important and influential people in Washington (i.e., the newspaper editors) to express their concern to the Secretary of Defense over the advisability of such a move.

The JCS may also have seen a logical flaw in the planned move that should have been apparent to AFSAC. As we have seen, the only real reason for moving away from the Washington area was to reduce AFSA's vulnerability to attack. While further inland than Washington, Fort Knox is not much further south, and was therefore would be only a little further away from a Soviet bomber attack over the Pole. In short, Fort Knox is almost as likely to be nuked as Washington.

Certainly, the fact that General Canine replaced Admiral Stone as director of AFSA and as chairman of AFSAC was a factor in the reversal. Not only was General Canine more concerned than Admiral Stone about the question of personnel loss, but he came to AFSAC comparatively late in the process and did not have the personal involvement in the site search and in the decision process that Admiral Stone did.

Another interesting aspect of the selection process is the apparent lack of political pressure. Competition among congressmen for military bases in their states and districts was common at that time, but it does not seem to have played any role in this case. There are two possible reasons for this: the almost total anonymity of AFSA at the time, and the relatively small number of people involved.

In November 1952 AFSA became NSA, and the contract for the building at Fort Meade was signed in July of 1954. And the rest, as they say, is history ...

This will hardly be the definitive article on the subject. There are many people still working here who were at AHS while all this was going on, and anyone who can shed more light on the subject is more than welcome to comment; it would be particularly interesting to hear what employees were thinking and saying during the eight months when the move to Fort Knox appeared to be a sure thing. □

CONFIDENTIAL

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SUPPORT
TO LANGUAGE
ON THE ASTW

A432

This article is classified FOUO in its entirely.

The PC-DOS operating system installed on the ASTW has the inherent capability of supporting foreign languages. The original foreign language that is installed is the Cyrillic alphabet. However, the installed sorting sequence is incorrect. [   ] of A432 have provided to the PCIC a modification to the operating system that corrects the sorting sequence and provides a better character display than that provided by IBM.

We have also created a character set that can be down-loaded to an EPSON-FX series printer that allows the ASTWs to print Cyrillic. This printer character set will not, however, work with the printer that is supplied by IBM as part of the ASTW contract.

As a results of our attempts to use the Cyrillic character set on the IBM family of personal computers, we have identified several software packages that work quite well with foreign language data. If you need a data base manager, both CONDOR 3 and dBASE II work quite well. dBASE III probably does also. The PERSONAL EDITOR, WORD PERFECT 4.0, and BONNIE BLUE word processing programs also work quite well. All of these packages allow the full definition of characters above 127 in the ASCII table to be used as data only. Field names, commands, and other characters that must interact with the software package must be accomplished using the standard 127 ASCII characters.

Many software packages, such as WORDSTAR, the most popular word processing program, do not work with the foreign language capabilities at all.

All of the above software, including the modifications that A432 have created, are available from the PCIC in the Main Library. Answers to questions concerning the modifications to the IBM-supplied software can be obtained by calling us at 963-4788.

Note that none of the modifications created by A432 affect the performance of the ASTW under the PC/IX operating system. As a UNIX system the ASTW is a bilingual disaster. □

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BULLETIN BOARD

BOOKBREAKING ON THE IBM XT

(FOUO) [   ] is a new bookbreaking package for the IBM XT, suitable for small codes. A copy of the program and a user's guide can be obtained from the PCIC in the Main Library. For further information call [   ] P13, 963-5868.

PROGRAM FOR LANGUAGE ANALYSIS
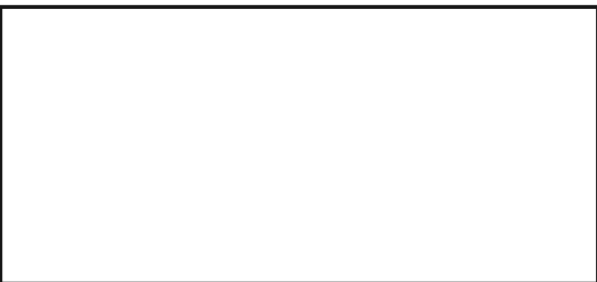
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(C-CCO) A package of programs that provide language counts, statistics and patterns similar to those contained in MILCRYPT I has been written for the CDC JEEP. The package, titled [   ] has four options: [   ] for text without punctuation or spacers; [   ] for text with spacers but no punctuation; [   ] for text with both spacers and punctuation. A fourth option, [   ] provides all of the above. As part of this package there are routines to excise spacers and punctuation from the original text. The programs can accept user-determined alphabets of up to 60 characters. For information call [   ] G42, 963-4845.

PROBE FOR DIAGNOSIS

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(C CCO) A new diagnostics program is now on JEEP. It is similar to [   ] but treats text in group-length rather than in character-length. Possible group size is 1 through 6, fixed-length only. For information call [   ] or [   ] G952, 963-585.

REVISED PINSETTER MANUAL

(FOUO) A revised edition of the PINSETTER manual for traffic analysis is now ready for distribution. If you are not already on the PINSETTER distribution list, you can obtain a copy from [   ] P14, 963-3369.
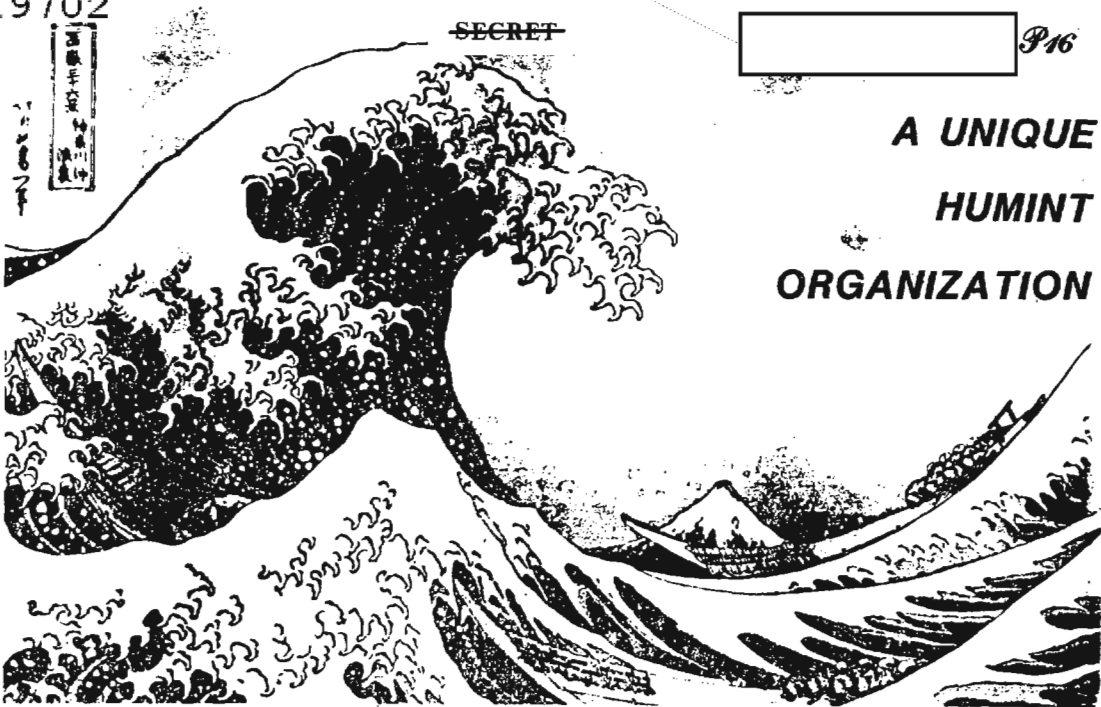
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MANUAL ON SECURITY MARKINGS

(FOUO) The DIA manual titled Standard Security Markings (DIAM 65-19) is available in the National Data Standards Center, P13D, 968-8161. It is applicable to all members of the DoD Intelligence Information Systems Community, including NSA.

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𝒫16

A UNIQUE HUMINT ORGANIZATION (u)

[U] The Asian Studies Detachment (ASD) of the 500th Military Intelligence Group, currently located at Camp Zama, Japan, is a unique human intelligence (HUMINT) organization. It is composed of approximately nine Department of the Army civilians, nine military members, and 75 Japanese employees. The Japanese work under the provisions of the Master Labor Contract between the Government of Japan and the US Government.

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(U) The reporting/production arm of ASD is the United States Army Document Center (UDC), which exploits open source foreign documents such as newspapers, magazines, and technical journals. The UDC has eight analytic teams, each team named for its primary intelligence focus:

* China
* North Korea
* USSR
* Middle East.

(U) All of the analyst teams are manned by Japanese nationals, the majority of whom are retired from the Imperial Japanese Army, (or, more recently, from the Japan Self-Defense Forces) who had extensive experience in intelligence as Foreign Area Officers.

(U) This unusual composition began to evolve shortly after the end of WW II. Predecessor organizations engaged in the translation of captured documents and archives were among the building blocks of UDC. One of the most important was the employment of Imperial Army flag officers who had been unemployable up until then because of regulations enforced by Supreme Commander Allied Forces Pacific. Once permission was granted to employ these officers, a large pool of expertise became available, particularly in endeavors requiring knowledge of Chinese characters.

(C) For the documents that UDC exploits, the term "open source" may be somewhat misleading. In restrictive societies such as the Soviet Union, North Korea, and the Peoples Republic of China documents which are circulated domestically are sometimes restricted for use by certain groups, for example, the military, and may not be taken out of the country overtly. Consequently, some of the open source documents are obtained covertly. In 1984 UDC analysts processed over 43,000 documents in their intelligence production effort.

OGA

(U) Some members of the intelligence community have called the type of intelligence work performed at UDC LITINT (literature intelligence) but those at UDC prefer to call it DOCINT, or document exploitation. The DOCINT process practiced at UDC has evolved over the years in much the same way as the organization and its structure has.

(U) The UDC is considered a collector but it also issues product, mainly in the form of Intelligence Information Reports   which are standard reporting vehicles   UDC reports are unique, however, in that they always carry a comment called the UDC Comment. These reports in many cases resemble finished intelligence while technically they are not. They are sent   on the basis of specific subject matter and general distribution

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guidelines. [redacted] distribution of these reports when they deem it appropriate.

(U) HITS has an evaluation program whereby reports are evaluated by the organizations which originated the requirements: actually 20-25% of the reports are evaluated. [redacted]

[redacted] Valuation of reporting is very useful for the collector, for it enables him to fine tune his reporting and to focus on the most productive avenues of investigation.

(C) Now for a brief description of the UDC's *modus operandi*. The [redacted] analyst daily reviews documents passed to him. [redacted]

[redacted] In his UDC comment the analyst points out items in the report he considers to be of significance [redacted] in exploiting the material, etc.

(C) Next, the analyst submits this draft report, written in [redacted] to his supervisor for review, who might return it for more polishing before it goes to the translation section. At this time, also, any special graphic, cartographic, or photographic materials to be submitted with the report are ordered from the appropriate support facilities within the organization. [redacted]

[redacted] The report next is reviewed by the Chief of the Reports Review Branch, the Chief of the UDC, and the Chief of the Asian Studies Detachment. The report then goes back to the [redacted] analyst who reviews the translation and returns it through his supervisor to the editor for final decision.

(U) The report then goes to typing and from there back to the editor for proofing. It is then typed in final form for distribution. [redacted] issued either in electrically forwarded copy or hardcopy if the report is less time sensitive and contains maps, graphs, charts, photographs

or other enclosures. The distribution copy is reviewed by the UDC and ASD Chiefs and released for distribution.

(C) The amount and types of information available through the exploitation of open source documents that are responsive to validated intelligence requirements is truly amazing. [redacted]

[redacted] One of the really useful and important features of UDC reporting, in my estimation, is the fact that it is entirely independent of other US intelligence holdings. Consequently, UDC reporting provides either independent verification of, or challenges to, other intelligence holdings, while avoiding the in-bred nature of some reporting which echoes others' reports and later echoes its own echoes.

[redacted] Furthermore, each section reports weekly to the others in a general meeting of all analysts on the hot topics of the week. They also keep each other apprised of new requirements received. [redacted]

(C) Most UDC reporting is issued at the CONFIDENTIAL level unless the documents involved were obtained through more sensitive sources. [redacted]

[redacted] These reports represent a very valuable currency [redacted]

(S-CCO) To sum it all up, the UDC is a singular HUMINT organization which provides an invaluable service to the US intelligence community in an extremely cost-effective manner. My detail to the UDC for two years from May 1982 through June 1984 provided me with a marvelous opportunity to learn every facet of document exploitation as practiced at UDC. Owing to unusual circumstances I became Acting Chief of the Reports Review Branch in UDC in October 1982, then in 1983 I became Acting Chief of the UDC, and remained in that position until I returned to NSA in June 1984. □

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Improving Life with an ASTW

G613

These hints may benefit users of the IBM PC-XT running PC/IX (the version of UNIX developed by Interactive Systems Corp. and licensed for sale by IBM for the PC-XT and ASTW) as well as new operators of the ASTW.

As currently received from the vendor, the PC/IX operating system contains several potential threats to computer security and system integrity, some of which are listed below in the form of problems encountered. The changes indicated will improve overall computer security, system integrity, and general ease of operability of the new workstation. These changes will also help users maintain their systems with fewer system errors, and save considerable time for the systems managers. All of these changes must be made by a "super user."

Clobbering Your Own File System?

Problem: If the power is turned off before the system has completed all the necessary disk writes, the file system may be left in such a state that it will be difficult or impossible to recover some files. That is because some basic file operations require multiple disk writes.

Solution: A special program */priv/shutdown* should be run before the power is turned off to assure that all necessary disk writes have been completed.

Method: Create a user login account called *shutdown* that will automatically run the program */priv/shutdown* and nothing else. This is accomplished as follows (what you type is printed in boldface):

```
$ adduser <R>
> add user shutdown <R>
Login           shutdown
Fullname
Uid             204
Group           100 (staff)
Directory       /usr/shutdown
Program
Filesize
Siteinfo
Password
 Maxage
 Minage
 Agenow

OK? (y)         no <R>
Field?          program <R>
```

```
Program        /priv/shutdown <R>
Field?         <R>

OK? (y)        <R>
Creating new directory
Standard new user initialization? (y) <R>
[ADDED]
> q <R>
```

Before the terminal is turned off, the user merely types in the login *shutdown*, hits the return key for the password, and waits for a new login prompt before turning off the power. This normally takes only about five to ten seconds. Since the only program allowed to run under this account is */priv/shutdown*, no password protection is needed and all users may use it.

Is Your File System Healthy?

Problem: A system crash, accidental power outage, or inadvertant power down can leave the file system with errors if *shutdown* is not run. If undetected, minor errors can continue to grow until they become disastrous.

Solution: The System Manager's Guide recommends that the file system check program (*fsck*) be run every time the system is initialized. This program will locate and often be able to correct any minor discrepancies in the file system before they become unmanageable. A minor change to the system initialization procedure will force the automatic execution of *fsck* during system initialization.

Method: Replace the letter *d* in line six of the file */etc/rc* with the letter *m*:

```
originally:    case $1 in
               "d")

change to:     case $1 in
               "m")
```

Classified Displays Left on Your Screen?

Problem: When a user logs off, the login prompt is displayed on the line immediately following the last bit of text, leaving a possibly classified data still displayed on the screen.

Solution: The licensing logo that is displayed with the login prompt can be readily modified to clear the screen before it is displayed.

Method: First make sure that the right hand margin in the INed editor is turned off before making the

modification, or else the text will wrap and cause a problem during system initialization. To turn off the margins, consult page 22 , Beginner's Tutorial to PC/IX, in the Text Processing Guide.

In the */etc/ports* file insert a backslash "f" (\f = *form feed* which clears the screen) before the licensing logo:

originally: herald = "\r\nPC/IX - 6428163 (c) Copyright IBM ...

change to: herald = "\f\r\nPC/IX - 6428163 (c) Copyright IBM ...

   put \f here ↑

Disks Overflowing with Garbage?

Problem: Default values are set up so that the *skulker* program that cleans out outdated backup files and ...filename INed temporary files runs at 3 AM. In areas where the computer is turned off at night, the *skulker* will never run and the disk will eventually get overloaded with "garbage" files.

Solution: Force the automatic running of the *skulker* programs during system initialization. This increases initialization time by about five minutes.

Method: In the file */etc/rc* add the lines:
    echo Running SKULKER
    /priv/skulker
immediately before:
    echo Normal startup completed.

Somebody Else Messing With Your Files?

Problem: A user who fails to logout makes the terminal available to other persons who may not be authorized to gain access to the terminal and to all the files. .

Solution: Set up the terminal so that it will automatically log out any user who fails to strike a key on the terminal keyboard for a specified number of minutes.

Method: Include a timeout command in the */etc/environment* file such as:
    TIMEOUT = 10

This is the number of minutes the keyboard may be inactive before automatic logoff will occur. Any number may be specified.

Funny Faces In Your File?

Problem: Files transferred between DOS and PC/IX end up with a "smiley face" character at the end of each line. This happens because of the different ways of specifying carriage return and line feed. DOS uses two characters at the end of each line of an ascii file to represent a carriage return and a line feed (015 and 012 respectively) whereas PC/IX uses only one (012). When a DOS file is transferred to PC/IX, the superfluous function key on each line is displayed as a "smiley face" character.

Solution: Execute the following shell to remove them.

Method: Put the following shell in your */usr/bin* directory with a mode of 555:
    # fixdos by Ron Hecox, G613, 6005s November 1984
    # Repairs DOS files so that they are PC/IX compatible.
    rpl "" "" | tr "\015" "\012" < $1 > $1.t
    sed -e "/^\$/d" < $1.t > $1.nu
    rm $1.t
    echo "The DOS file $1 is repaired and is called $1.nu"
    exit

Printing Wide Text?

Problem: When you print a file that is wider than 80 characters on a standard printer, only the first 80 characters of each line will be printed.

Solution: Set the line printer default line width to 132 instead of 80. (Proper commands must still be inserted in the file to control the IBM Graphics printer when printout of 132 characters is desired.)

Method: Change the file */etc/rc* to read as follows:
    # Set defaults on /dev/lp if the system has a parallel line
    printer.
    splp indent = 0 width = 132

Editor Losing Your Files?

Problem: On very large files, (2,000 to 3,000 lines), the INed editor has been known to exit and automatically re-invoke itself without any file saves. This happens when using the "insert key" (F4) or the "put down key" (F6).

Solution: Keep your files small.

Method: Split large files into smaller parts for editing and then concatenate them back together for processing.

Time Getting In Your Way?

Problem: The current time is automatically displayed every hour. Many users find it annoying to have the time suddenly displayed in the middle of their work.

Solution: Turn off the automatic display of the current time. Use the *date* command if you need to display the time.

Method: In the file */usr/lib/crontab* insert a # and a space before the date display command so it will be treated as a comment as follows:
    # 0 * * * * exec echo "The hour is" 'date'. > 'dev/console &

Cyrillic Display Problems?

Problem: You have a USI graphics monitor on your ASTW and try to display Cyrillic text, but the characters display only halfway. In addition, when you try hitting the *language* key to turn it off nothing happens. This is because the character maps for the monochrome display and the color displays are different. The PC/IX system comes configured for a monochrome monitor while the USI monitor is, in reality, a color monitor with sixteen shades of green.

Solution: Your system files must be reset to identify it as a color monitor and require downloading of the correct character map for your display.

Method: In the file */etc/rc* comment out the 'mono.map' statement and uncomment the 'color.map' statement so it reads as follows:
    # Uncomment only ONE of the following:
    /priv/charam -a /etc/color.map
    # /priv/charam /etc/mono.map
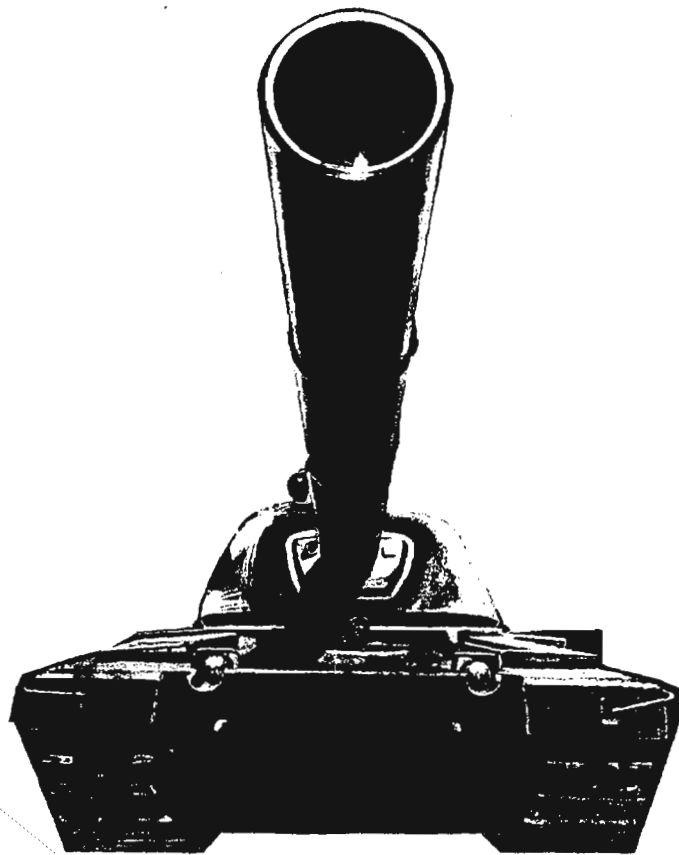
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...AND THERE WE WERE! (u)

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(C) It's 1963. I have about four weeks to go on an 18-month tour_____ As usual, when our bunch finishes a six-day stint on duty in the boondocks, we hop on the bus _____ for a break of two or three days. As we approach _____ on the main road, we notice tanks on both sides of the highway.

(U) Well, that even happens at home on Armed Forces day; maybe it's just a parade.

(U) Wait a minute -- the turrets are turning, keeping pace with the bus. Holy Smoke! (Or words to that effect.) There's a roadblock ahead with armed troops! It must be the (then) annual attempted takeover of the national government by a disgruntled officer corps.

(C) All of us are in civilian clothes, except for "Monte," who had arrived only three days ago and whose civvies hadn't. We're at the roadblock now and I see a _____ Second Lieutenant step out from behind the barricade and motion for the bus door to be opened. His six troops train their weapons on the driver.

(C) Where the thought came from I don't know to this day. If necessity is the mother of invention, desperation is its father. I tell Monte to take out a stick of gum, fold the solver-colored wrapper into a small rectangle, and place it in his fatigue cap. Rising to his full six feet seven inches, he confronts the _____ Second Lieutenant with all the bluster he can summon up.

(C) Having all his life been accustomed to social classes and ranks, the _____ officer backs down from the American "first lieutenant's" silver bar and allows said "lieutenant" to pass the roadblock _____

(C) Before our break is over, the disaffected troups have been arrested, the tanks have been removed, and we notice, as we ride back out _____ for another six-day stint, that you can't even tell that there was a roadblock right over there, just the other day. □

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SECRET

Saga of

Stretch

(u)

golden oldie

It started in September
of seventy four.

Perhaps a few days sooner,
or a few days more.

The minds of these men
were in an awful state

Over the absence
of certain vital real estate

And certain information
for their leaders could fetch.

And ideas flowed
as if poured from a flask.

Their critics were numerous
and soon did emege,

And chanted a chorus of doom
to the tune of a dirge.

But our players pressed onward
not knowing when to quit.

Their minds were tormented
as if by a fit.

If our saga were written
from the Wayside Inn

To historic events
these words would seem akin,

"One if by land,
and two if by sea."

Three if by air
is the alternative key.

Our players did travel
from coast to coast

Seeking solutions to problems
that bothered them most.

Certain of these men
put their careers on the line

And a possible approach
they did finally define.

Then the champions emerged
to cry it out

To overcome resistance, opposition,
apathy and doubt.

A Jerry named Kozlowski
a Light Colonel called Reed

Gave answers to questions
and nourished the seed.

They called for support
from their Can Do team

The responses were varied
or so it did seem.

But the players did gather
from the ends of the earth,

And the mother of invention
to a baby gave birth.

They would steal all the assets
from the Compass called Bright

And gather in funds
from any program in sight.

There was talk of assassination
below the third floor

Of the Pentagon palace,
the Joint was now sore.

But strength nourished by faith
over what had already been done

Helped overcome doubt
and the first battle was won.

Then a schedule was established
by the heads of state

And a tempo was set
 that most players would hate.

A meeting was called
 In Virginia's Falls Church

For a forty-five day miracle
 our players did search.

Colonel Reed started the proceedings
 and spelled out the plan,

Sweet Old Bill rose to the occasion
 with the answer "We can,"

Followed by Lloyd
 who said what he'd do

To make the dream of this project
 if at all possible come true.

The "Skunk Works" was called on
 to reconfigure a deuce

And Bob Farley
 would give the program the juice

Then we returned to our locations
 and started to go

Though the dollars were short
 for funding was slow.

Finally in November
 we got our full start

From the ninth day and onward
 we'd from sanity depart

There was hardware to build
 and parts to procure

Inventions to make
 and GFE to appear

On a cold night in December
 for the Coast we did head,

The airborne equipment
 was finally put to bed.

Then the search for the tower
 did not seem to bear fruit.

We built them another
 with a job-crane to boot.

The airlift was kept busy
 on the way to both coasts,

The men worked with their heads down
 without any boasts.

The days stretched into nights
 and then into days,

They worked on without failing
 their minds in a haze.

Then on to flight test
 . at Andrews and Meade.

The work pressed on forward,
 this crew would succeed.

After some disappointments
 and a time to stand down,

The crew assembled again,
 this time they'd never give ground.

Finally a successful conclusion
 all objectives were met.

The vict'ry celebrations
 were more than a sure bet.

Then stand down again
 until time to deploy.

The legal maneuvering
 brought few people joy.

They painted the airplane,
 and painted again

To please all the Generals
 was a task Herculean.

Then the word went on forward,
 we're ready to go.

There were few who weren't anxious
 to start the big show.

The effort seemed worth it
 the Team made a score.

There's work still to be done,
 there's no denying that

But we're all very anxious
 for our next turn at bat.
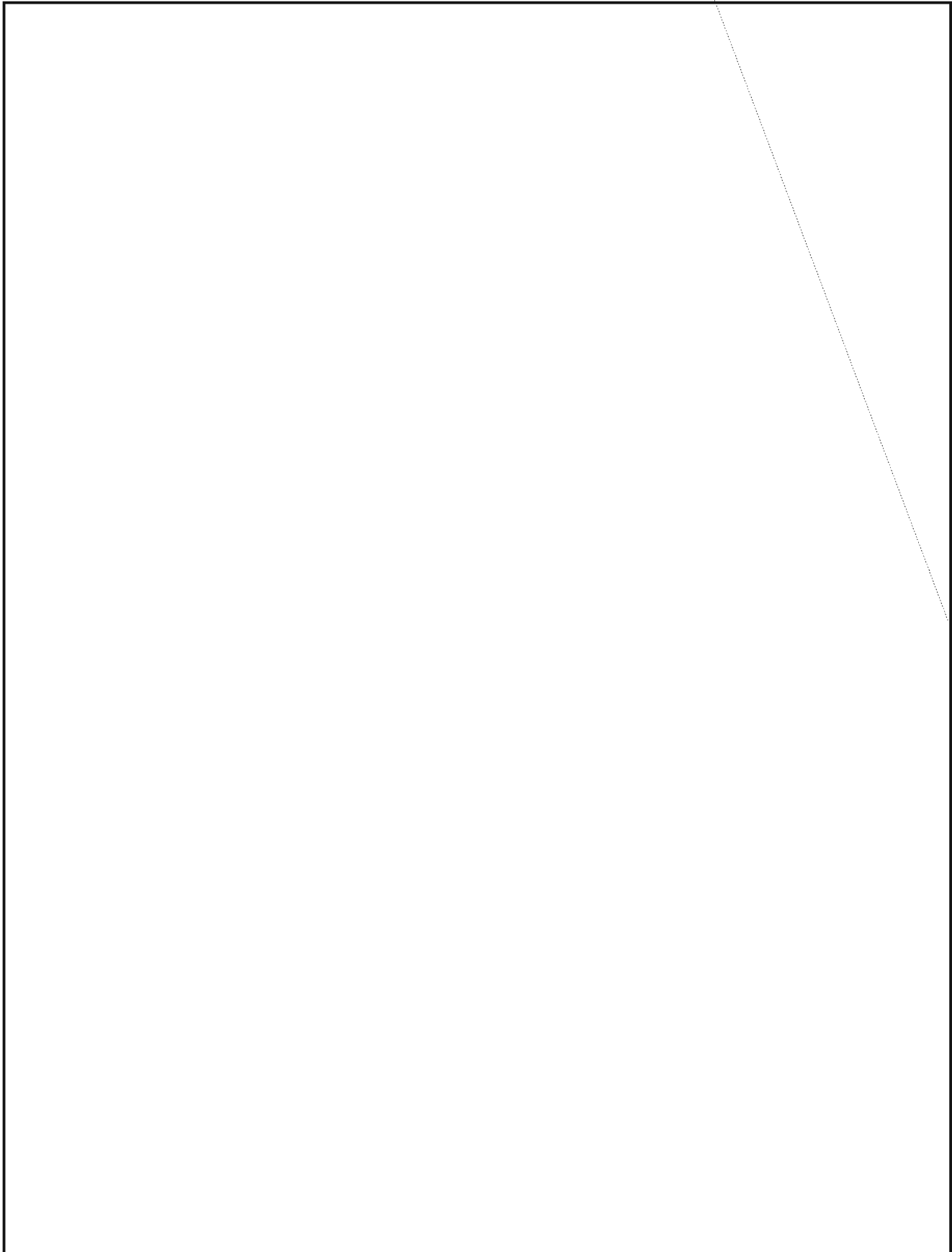
It's great to be part
 of the Can Do team

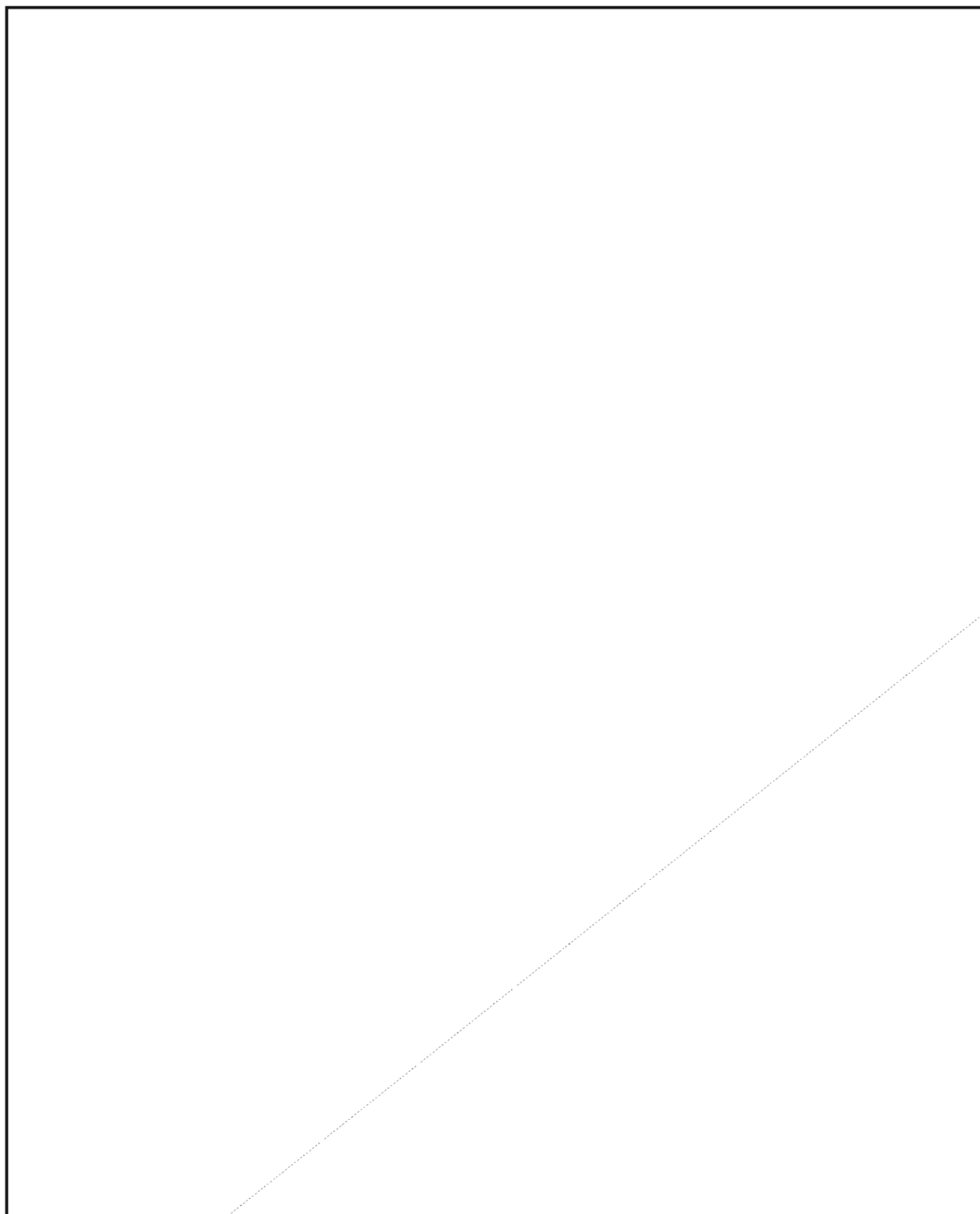There's nothing we can't handle
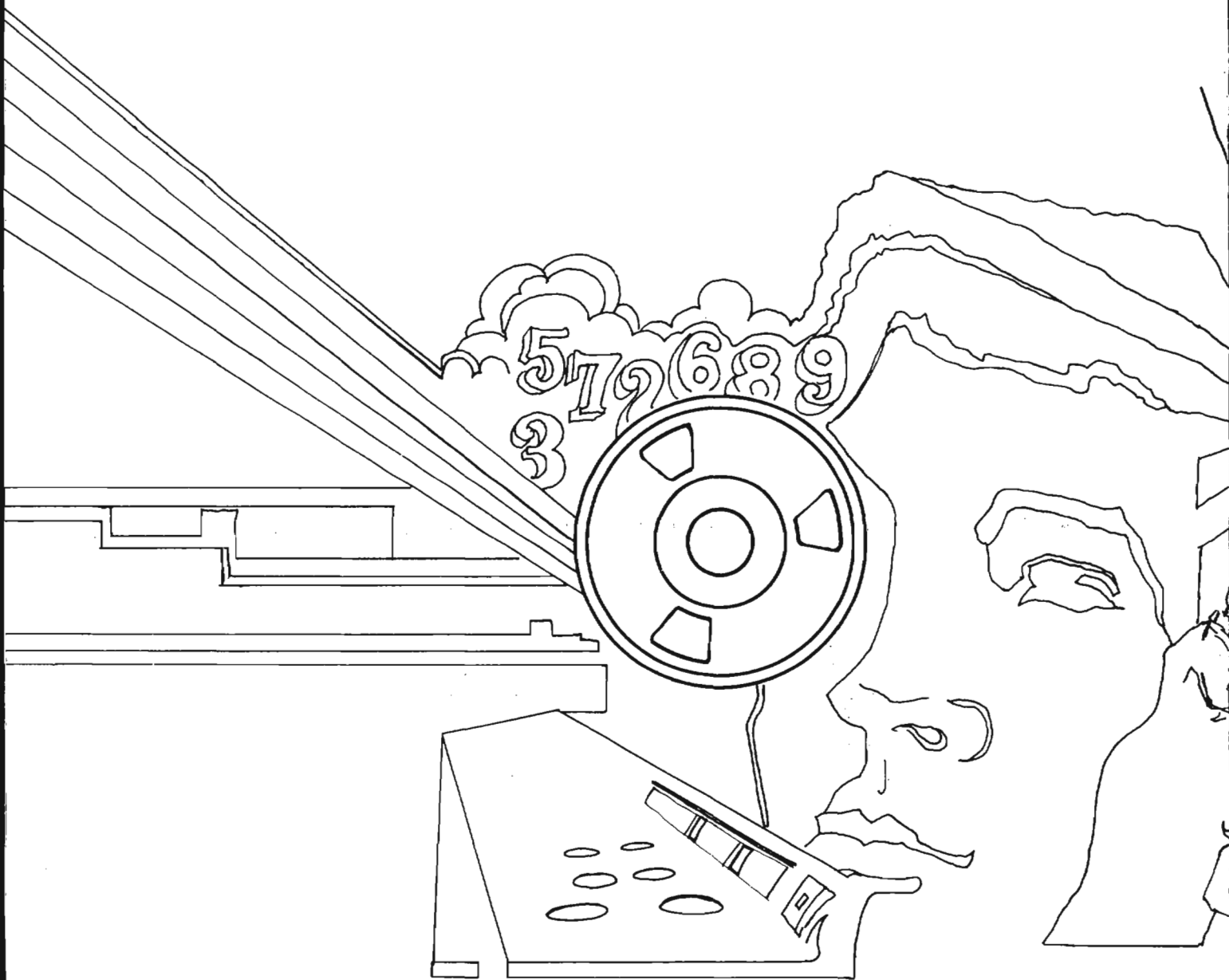 or so it would seem.

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A conventional account of [   ] appeared in
the Spring 1976 issue of The Cryptologic SPECTRUM

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