

~~TOP SECRET~~

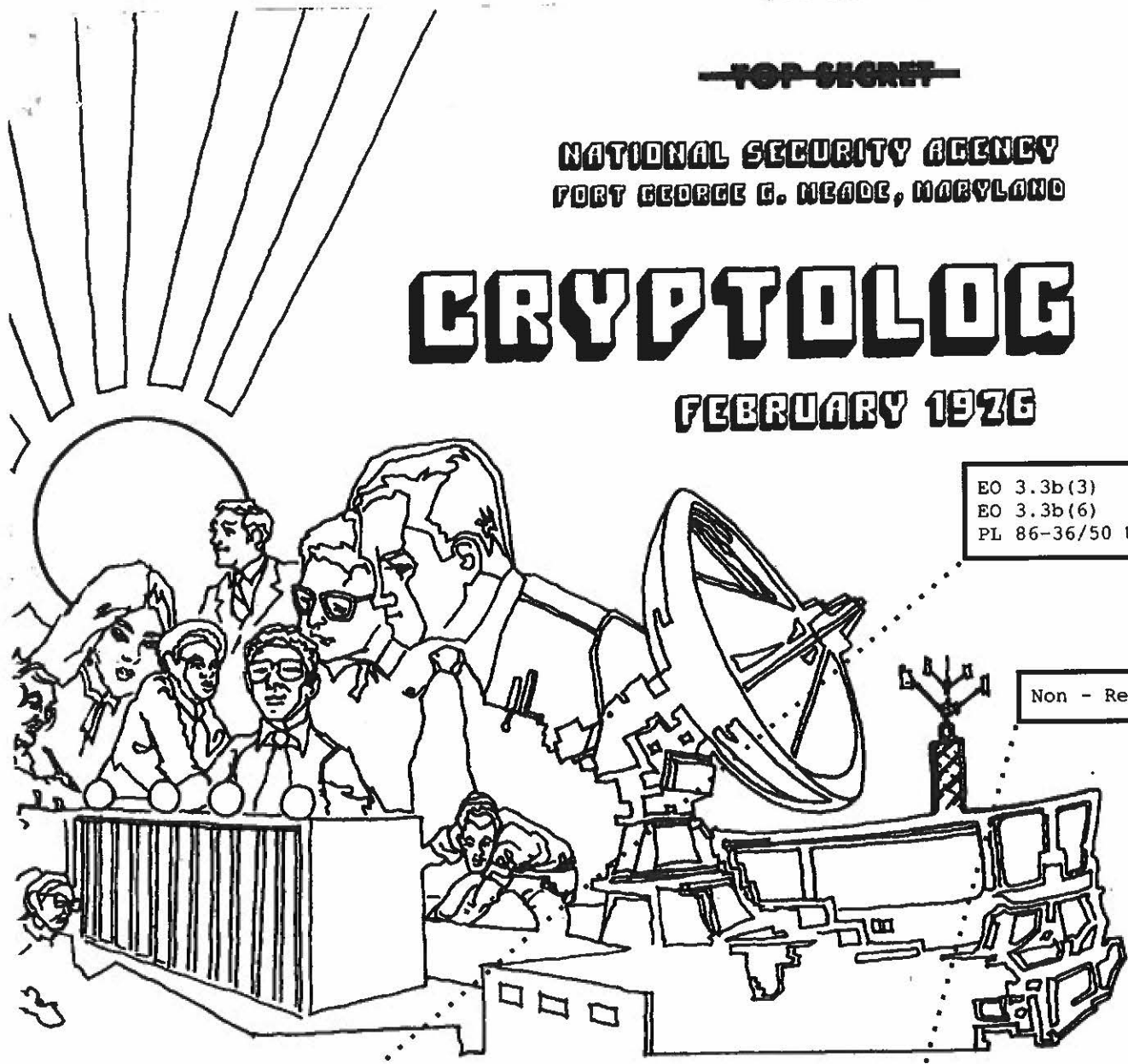
NATIONAL SECURITY AGENCY  
FORT GEORGE G. MEADE, MARYLAND

# CRYPTOLOG

FEBRUARY 1976

EO 3.3b(3)  
EO 3.3b(6)  
PL 86-36/50 USC 3605

Non - Responsive



THE [REDACTED] SYSTEM..... Howard Cohen..... 1

WHAT IS CIPHER TEXT?..... Alice Dibben..... 3

[REDACTED]..... 6

[REDACTED]..... 7

[REDACTED]..... 13

~~THIS DOCUMENT CONTAINS CODEWORD MATERIAL~~  
~~TOP SECRET~~

~~Classified by DIRM/NSA/CSS (NSA/CSSM 128-0)~~  
~~Exempt from GDS, EO 11652, Category 2~~  
~~Declassify Upon Notification by the Originator~~



# THE [REDACTED] SYSTEM

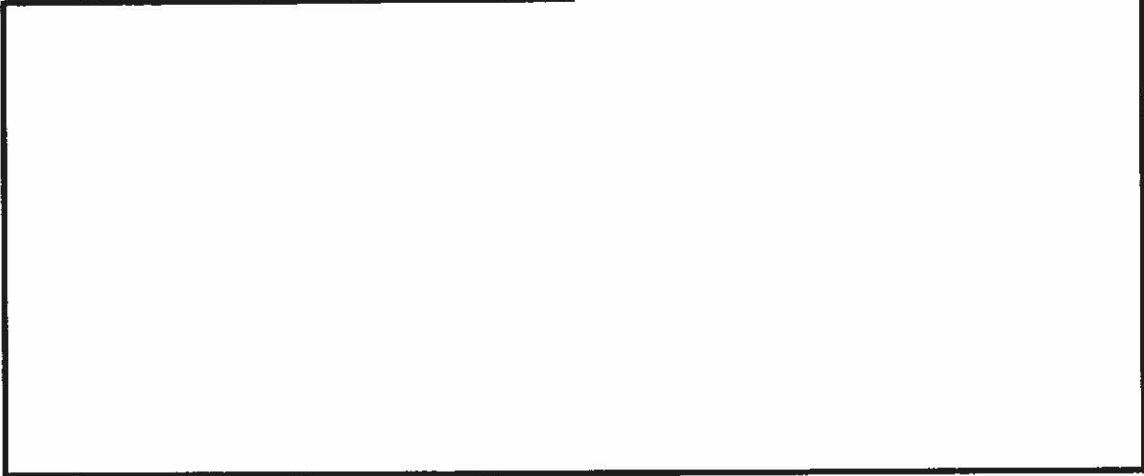
Howard H. Cohen, c665

The following article on the [REDACTED] System originally appeared in the August 1975 issue of NSA/CSS Field Information Letter, the Editor of which has given his kind permission for reprinting it in slightly revised form.

### Introduction

Many articles published in CRYPTOLOG deal with collection. Some articles are oriented toward analysis, such as "COMINT Analysis of [REDACTED] (September 1974). Others, such as "UNNA: [REDACTED] (January 1975), deal with one type of collection system. In today's world of ever-increasing technology, the field of satellite communications and the intelligence produced by that medium continue to expand. [REDACTED]

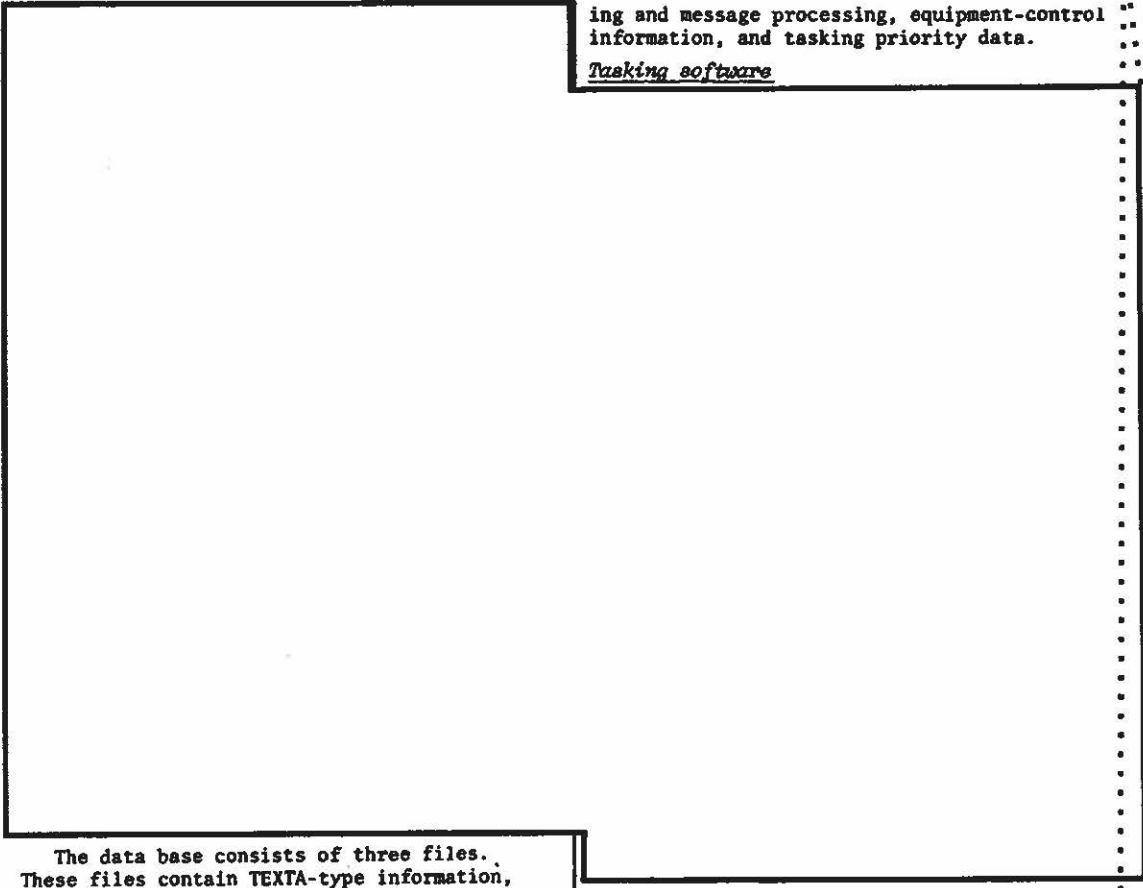
### Background of the [REDACTED] System



~~SECRET~~

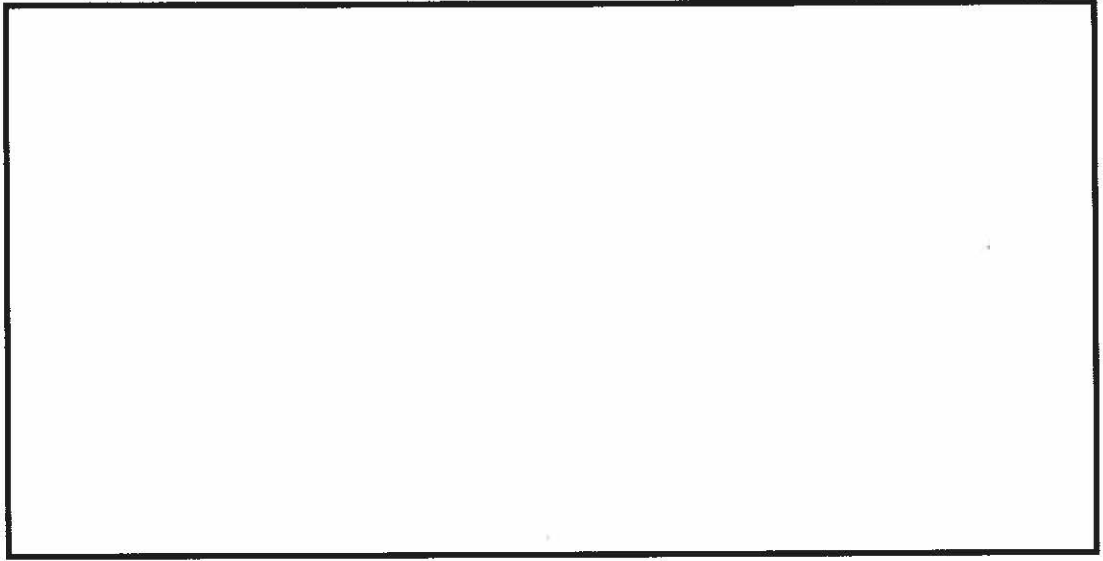
ing and message processing, equipment-control  
information, and tasking priority data.

Tasking software



The data base consists of three files.  
These files contain TEXTA-type information,  
processing parameters for both signal process-

*(Continued on page 13)*



~~SECRET~~

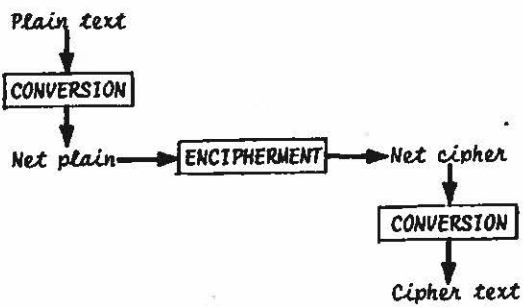
~~HANDLE WITH EXTREME CARE~~

# WHAT IS CIPHER TEXT?

ALICE DIBBEN, G48

The walls of our office have lately echoed many a lively discussion about what exactly is cipher text. Since the people in our office deal with cipher machines, the cipher text we talk about is mainly the product of such machines. Now, some cipher machines produce punched paper tape which is then fed into a teleprinter which transmits the data over a TELEX line. The transmitted data is received on the other end by a teleprinter, punched on paper tape, and then fed into the cipher machine and deciphered. What is cipher text in this case? Is it everything that was originally punched on the paper tape, or is it only those characters which were enciphered?

Before I present and defend my definition of cipher text, let us think about what a cipher machine does. It takes some plain text input, enciphers it, formats it, and outputs it<sup>1</sup>. This process can be schematically represented as follows:



The terms *net plain* and *net cipher* are my own; in the total encipherment process, *net plain* represents the product of a conversion which puts the plain text in the form required for encipherment, and *net cipher* represents the immediate product of the encipherment before conversion to the form required by the transmitting medium.

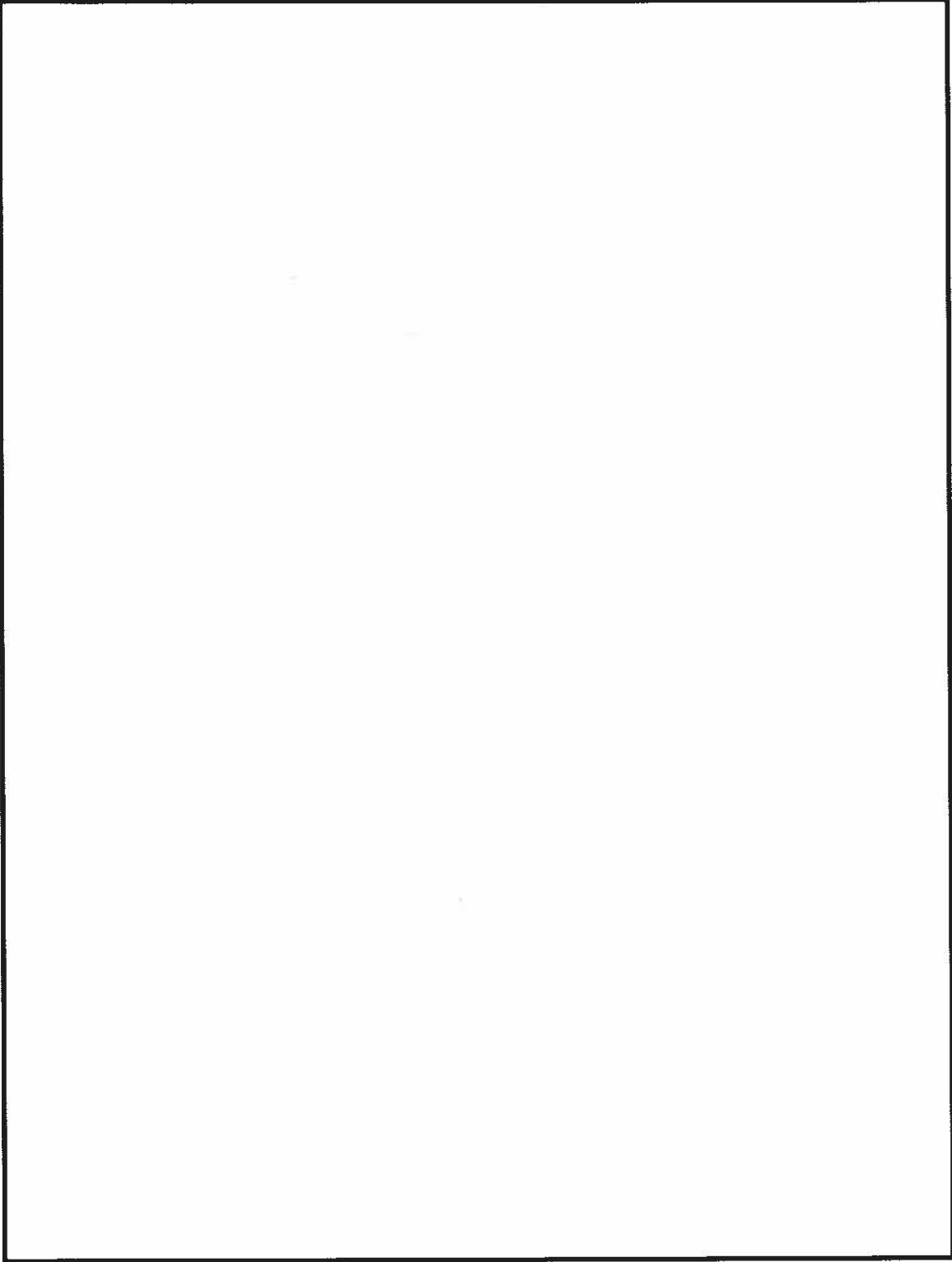
Arguments about the exact definition of cipher text arise when plain text, net plain, net cipher, and cipher text are from different char-

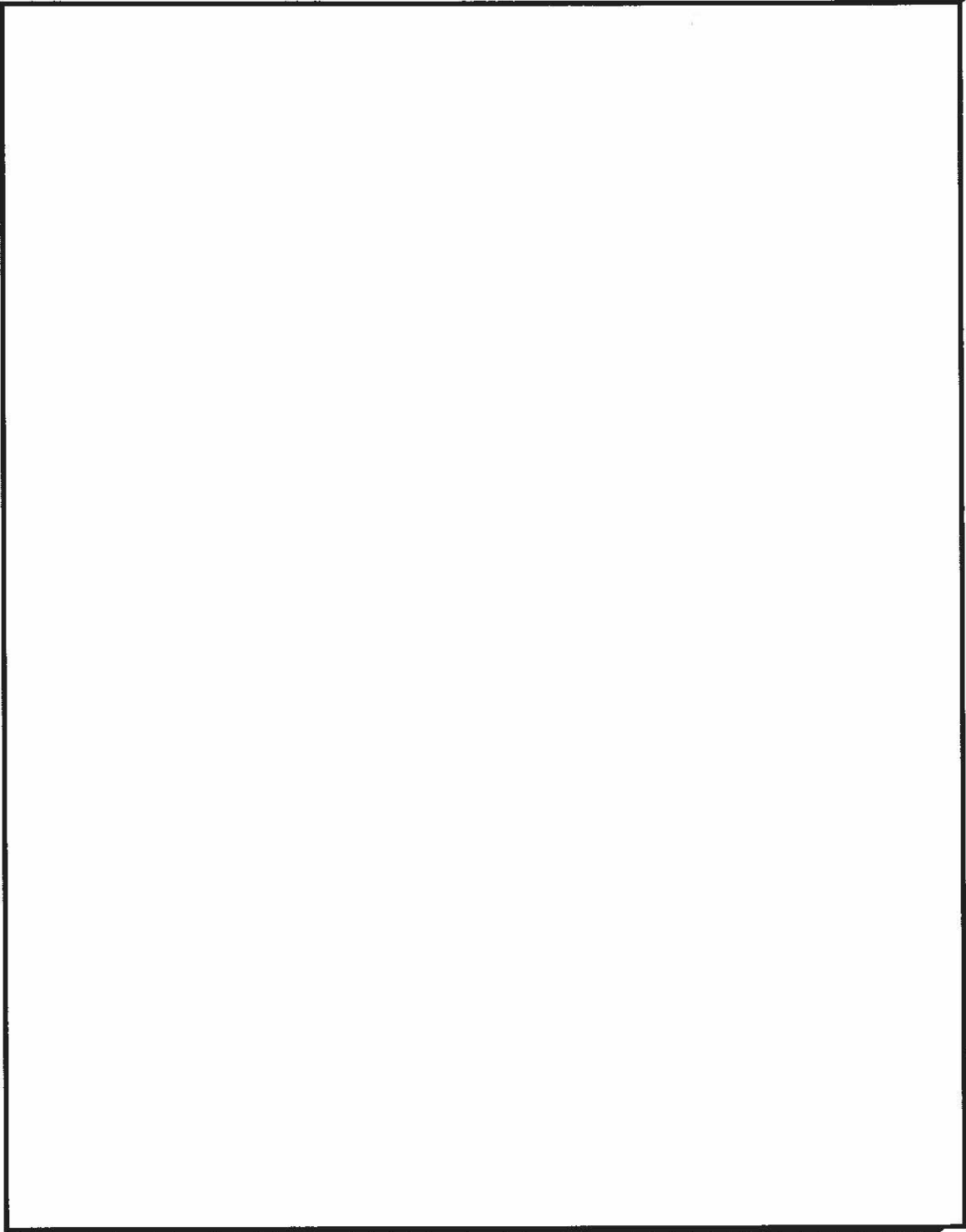
<sup>1</sup>A cipher machine also performs the reverse process, that is, take some cipher text input, unformats it, decipheres it, and outputs it as plain text, but this decipherment process will not be considered in this article.

acter sets.

In a nutshell, then, my definition of cipher text is *what is sent*.

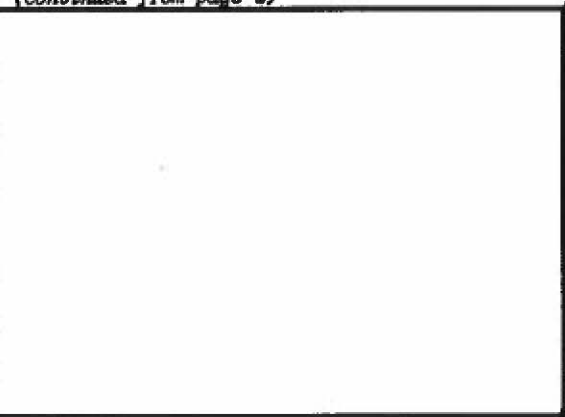
[Empty box]



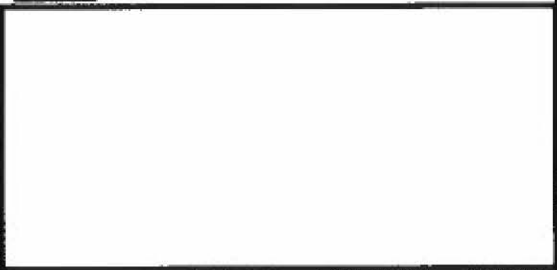


THE [REDACTED] SYSTEM

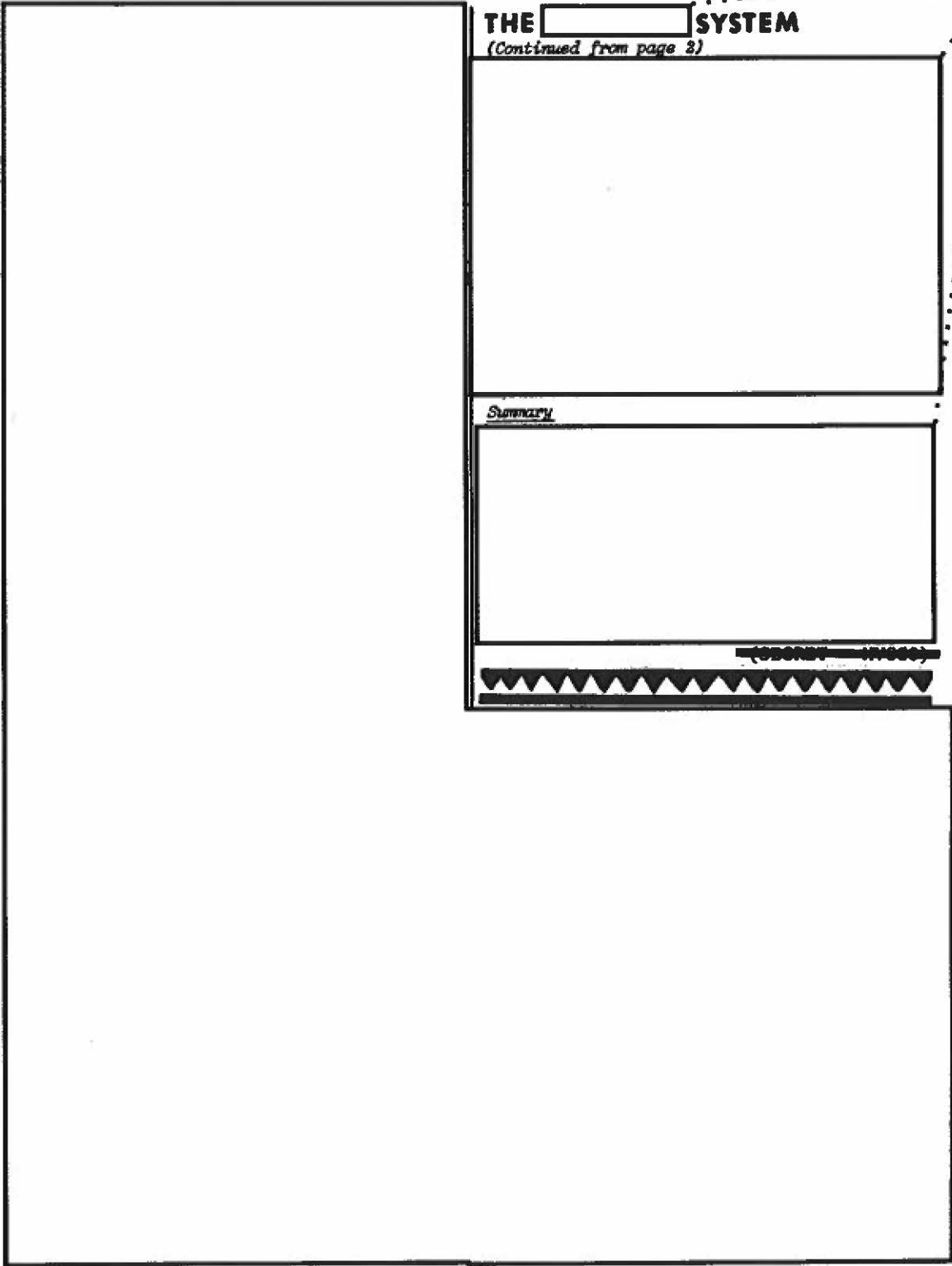
(Continued from page 2)



Summary



~~(SECRET) (R1800)~~



Non - Responsive