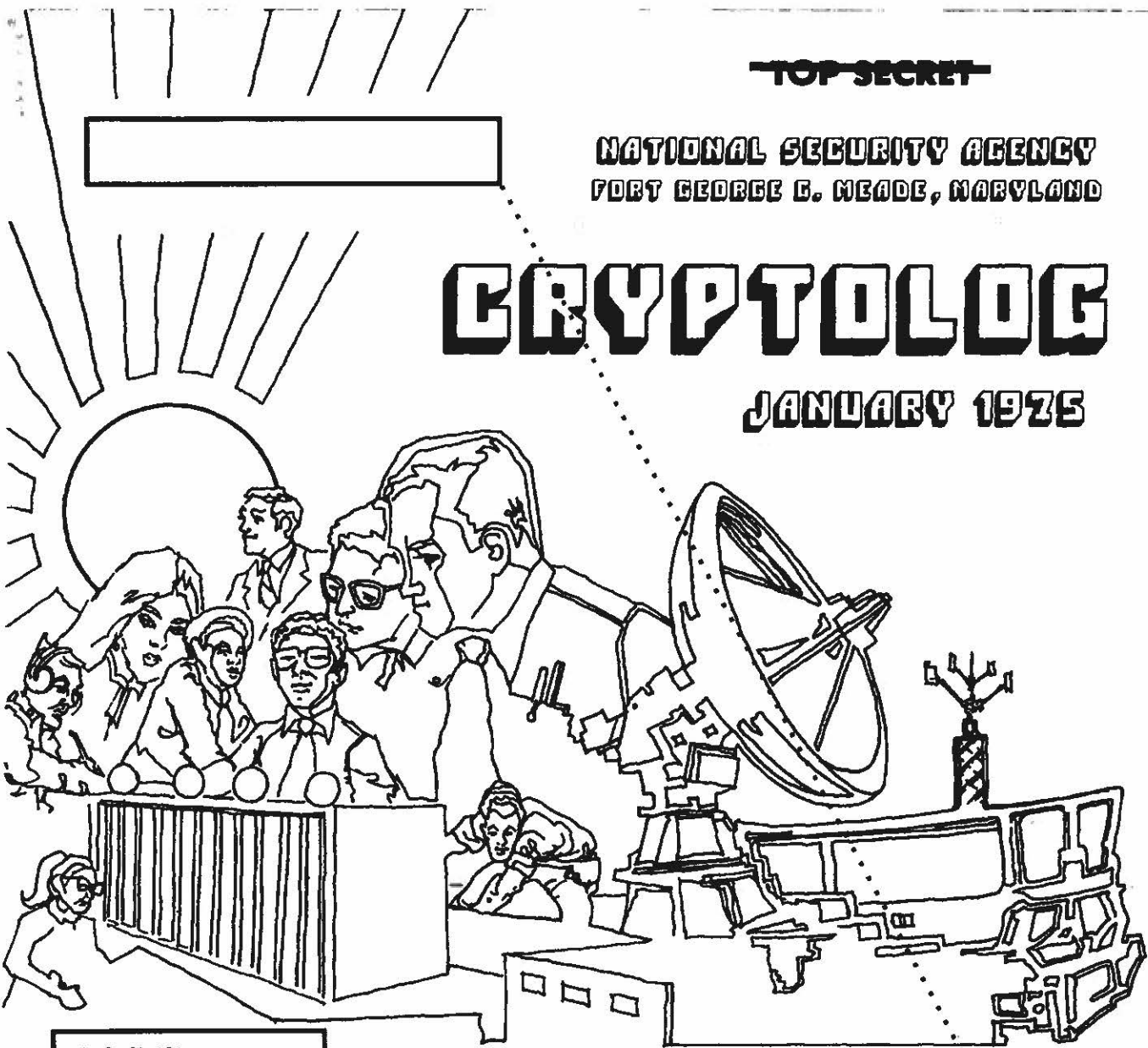# NATIONAL SECURITY AGENCY
FORT GEORGE G. MEADE, MARYLAND

CRYPTOLOG

JANUARY 1975

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

Non - Responsive

UNNA, ...James M. Walls........ 1

Classified by DIRNSA/CHCSS (NSA/CSSM 123-2)
Exempt from GDS, EO 11652, Category 3.
Declassify Upon Notification by the Originator.

UNNA

by
JAMES M. WALLS, C65

In his article [ ] in the September '74 issue of CRYPTOLOG, Derek Craig succinctly stated a pressing problem.

According to the gloomy prognostications of certain writers, the British banking system is already balanced precariously on deposits of Arab wealth which can be redeemed at any moment. The daily newspapers report that Arab efforts to acquire Lockheed Aircraft Corporation have been forestalled. Rumors of an impending purchase of IBM by Arab interests are denied. Arab wealth has already begun to insinuate itself into the fabric of Western economies at some very sensitive spots.

The situation bears watching. The economies of Britain and the United States, foundering under the forces of shortages, recession, inflation, and domestic despair, are vulnerable to disruption, and the Arabs seem not averse to creating mischief.
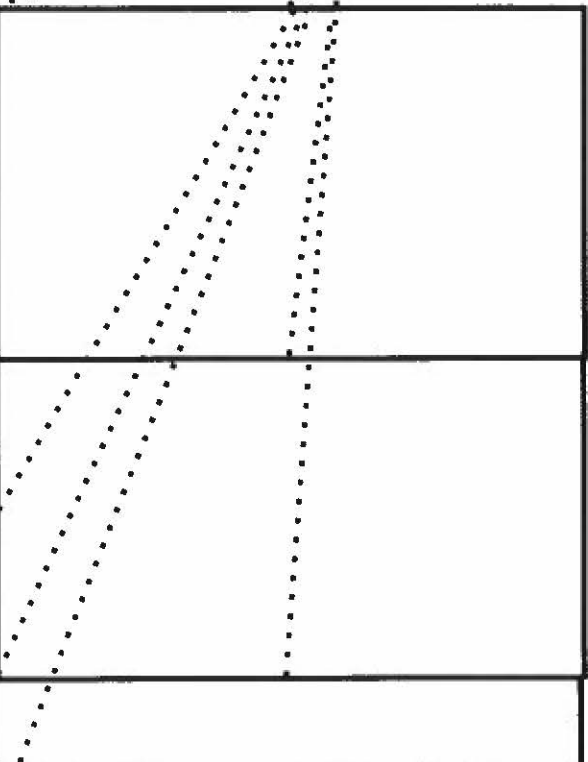
"It is critical," says Mr. Craig, "for United States policy makers to know how

UNNA*

*Ed. note: *This is not an acronym, as you might suppose, but an R task covername. The pronunciation most often heard here is "Oona."*

All the AP requires is a properly ordered directory.

In addition to the "search" function, the AP can, under computer control, do the following:

Add an entry to core, in proper order;

Delete an entry from core, and adjust remaining entries;

Read an entry from a designated core address;

Write a word into a designated core address;

Clear core (put all 1's into all of core).

UNNA was designed and developed in R33, with C65 contributing to software development. The device underwent engineering tests

UNNA, as now configured, collects data on magnetic tape.

The TAP inputs from the TCD 25 pairs of signal for each voice channel. One signal constitutes parts of 25 different data bit streams (the telegraphy channels) and the other consists of an "energy

UNNA Functional Description

UNNA is divisible into four parts: Time Compression Demodulator, [   ] Associative Processor (already described), and Honeywell DDP-516 Computer with peripherals.

Time Compression Demodulator (TCD).

The standard computer-to-TAP output is used to control the TAP's actions.

The TAP can accept from the computer tasking to:

notify the computer when an established time limit has elapsed.

Computer (DDP-516). The computer used in the UNNA system is the Honeywell DDP-516, with 32K memory. In the "stand-alone" mode it has the following peripherals:

mag tap controller and two mag tape units, device speed: 36 ips, 556 or 800 bpi,

card reader and reader control unit, device speed: 200 cpm,

data terminal (typewriter), device speed: 10 cps, 75 characters per line.
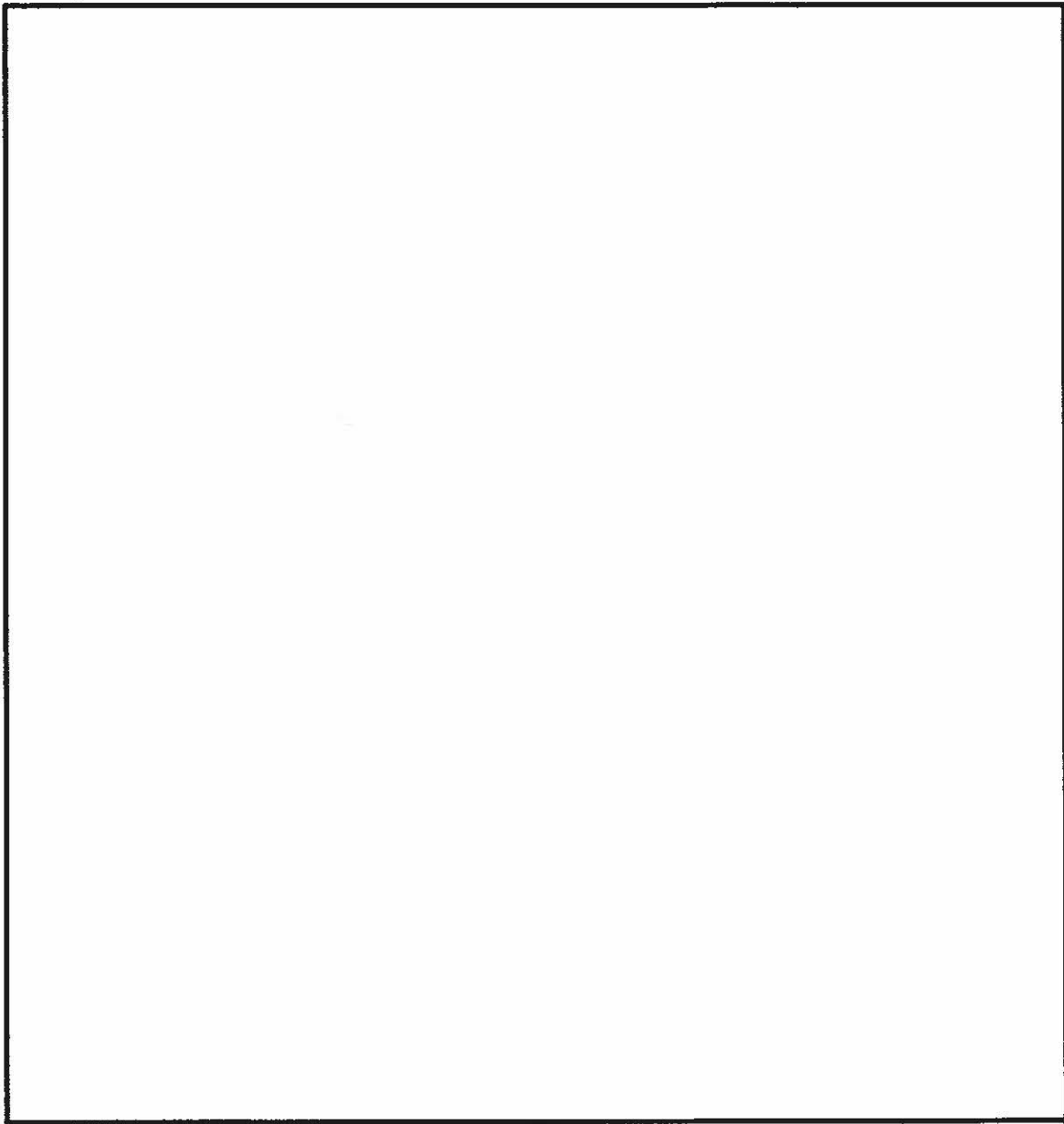
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The computer controls the system through its primary software, [ ] It accepts tasking data from the user through the card reader (in the current "stand-alone" mode) and processes the TAP input accordingly. The computer separates [ ] forms the data into buffers, and outputs to mag tape (again, in the current stand-alone mode). The computer also updates the AP directory on line, and controls the on-line diagnostic test.

UNNA is the ideal device with which

(SECRET SPOKE)

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