STATUS REPORT

OFFICE OF COMMUNICATIONS

MODERNIZATION

OF CIA

COMMUNICATIONS

SECRET

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MODERNIZATION

OF CIA

COMMUNICATIONS

April 1989

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PREFACE

Annually since inception, we've reported on the status of the OC Capitalization Program. This year, amidst programmatic and budget discussions of "bringing the program to base," the report takes on special significance. While we tend to look for the right words or phrases which best describe how far we've come, how much we've done - in fact, our accomplishments speak for themselves. This report attempts to outline, in simple terms, a major undertaking in which individual effort was the key to success.

There is one overriding point, however, which does need emphasis. While the expressed goal of the program was the modernization of our communications network and capabilities, in fact modernization is, has been, and always must be an integral part of our mission. Our program now must be to insure the continued vitality of our recapitalized network. This is the message we must continually deliver: to the Executive Branch, and to Congress. Modernization is a daily process, not a sine wave of ten year periodicity.

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EXECUTIVE SUMMARY

Central to the intelligence mission is the collection and dissemination of information. At its heart is communications. However, as so often happens during lean resource years, key aspects of the intelligence infrastructure such as communications do not always enjoy priority attention. This was the case in the late sixties and the seventies. Fortunately early in the 1980's, Agency management recognized that "doing more with less" had seriously impaired many Agency programs, and set a course to rectify the situation. The Communications Network Recapitalization Program was and is one of the more successful of these efforts.

With the Office of Communications recapitalization program the Central Intelligence Agency embarked on a revitalization of the conventional and non-conventional capabilities essential to its mission.

The Office of Communications received resources to:

- modernize the existing conventional staff communications network supporting all Intelligence Community elements;

- support increased Directorate of Operations requirements at new and existing locations;

- modernize non-conventional communications capabilities for [   ] crisis communications, and other support to overseas Directorate of Operations requirements.

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At Program's inception the Agency's telecommunications service, with few exceptions, was dependent upon late 1950's and early 1960's technology. Symptoms of weakness and stress were proliferating. Failures and repair rates were escalating. The volume of message traffic had more than doubled in the 1970's. The cadre of communications professionals was truly "doing more with less" during a period when other Intelligence Community capabilities were exanding and the Agency was called upon to support sizeable Covert Action programs and Continuity of Government activities.

25X1   The Communications Network Recapitalization Program, including [ ] and MERCURY switching projects - which were already underway and were incorporated into the Recapitalization Program - has progressed to the point where:

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communications capabilities. The MERCURY program has implemented packet switching at [ ] domestic and [ ] overseas locations.   225X1.

Other completed projects in the program have provided modernized conventional communications capabilities to all CIA overseas Stations and Bases. New message processors, cryptographic, High Frequency radio, power and air conditioning equipment have been procured and deployed.

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25X1   [ ] Additionally, the CRAFT program received full overseas technical support from OC.

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Today's professional cadre of communications officers, better than half of which joined OC since 1980, completed an intensive training program in modern conventional and non-conventional telecommunications systems and equipment. Training continues thoughout their careers as new technology is introduced into the network and they assume supervisory and management roles.

In sum, this report outlines a period of substantial investment and progress. Specifics are described in succeeding pages.

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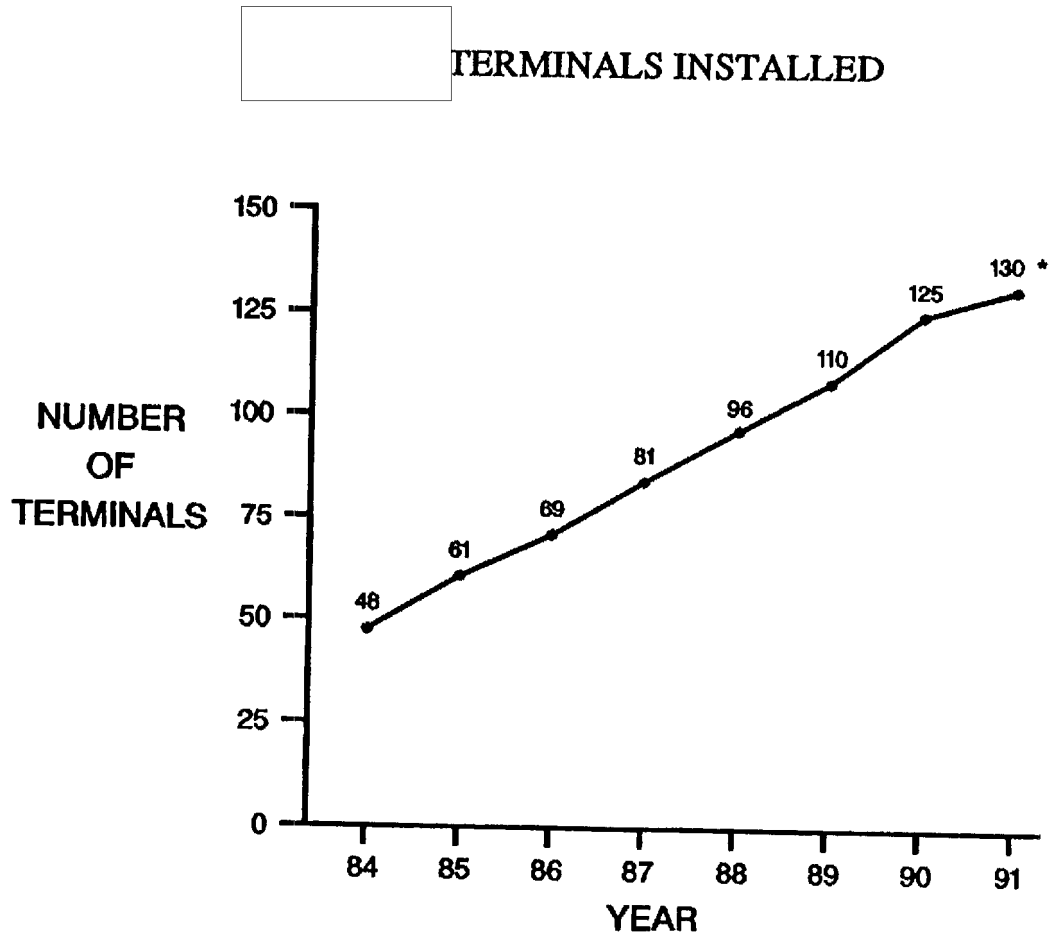Next 3 Page(s) In Document Denied

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TERMINALS INSTALLED

* Full Operating Capability Scheduled for 1993.

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PACKET NETWORK SWITCHING
(MERCURY)

The MERCURY project will modernize switching in the communications network to meet the multiservice needs of the Agency through the 1990's and beyond.

Packet Switching Systems have been installed in the Original and New Headquarters Buildings. _____ Buildings. _____

_____ All remaining Base Stations will have Packet Switching installed during 1989 with full MERCURY capabilities (message and/or packet switching) to be active at all overseas Base Stations in 1990.

The remote field Packet Assembler/Disassembler (PAD) Systems at _____ have been installed and activated. The MERCURY program maintains a 1989/1991 schedule to have overseas CIA Stations and Bases equipped and activated with PAD Systems. Procurement of MERCURY hardware is scheduled to be completed in 1990.

Lastly, the Network Service Center (NSC) was completed in the New Headquarters Building and the _____ NSC is underway with completion late in FY-89.

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REPLACEMENT CRYPTOGRAPHIC EQUIPMENT

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There are now more than [   ] modern, KG-84 cryptographic units being utilized at [   ] field and relay base stations. The KG-84 project was completed in 1985.

In an effort to meet data rates beyond the KG-84 capabilities, OC has procured KG-81 units and ordered the newer KG-94 wideband cryptographic devices.

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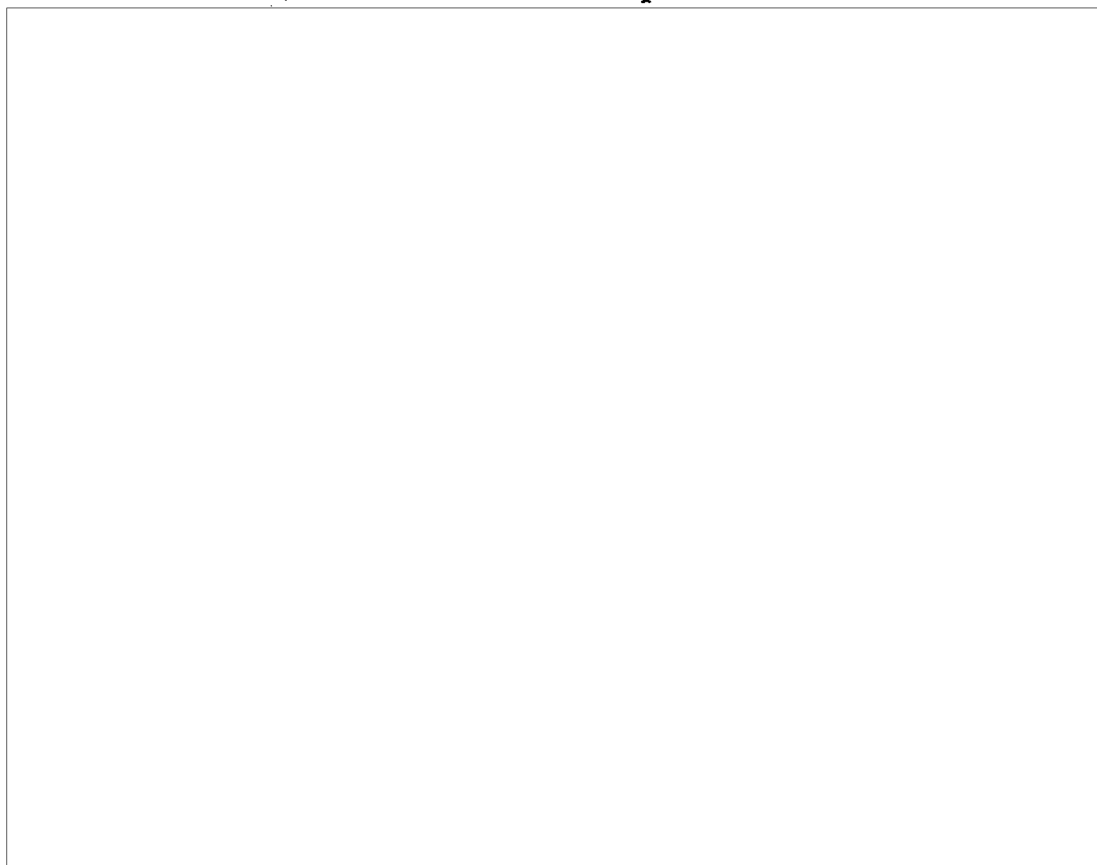*Full Operating Capability achieved in 1985.

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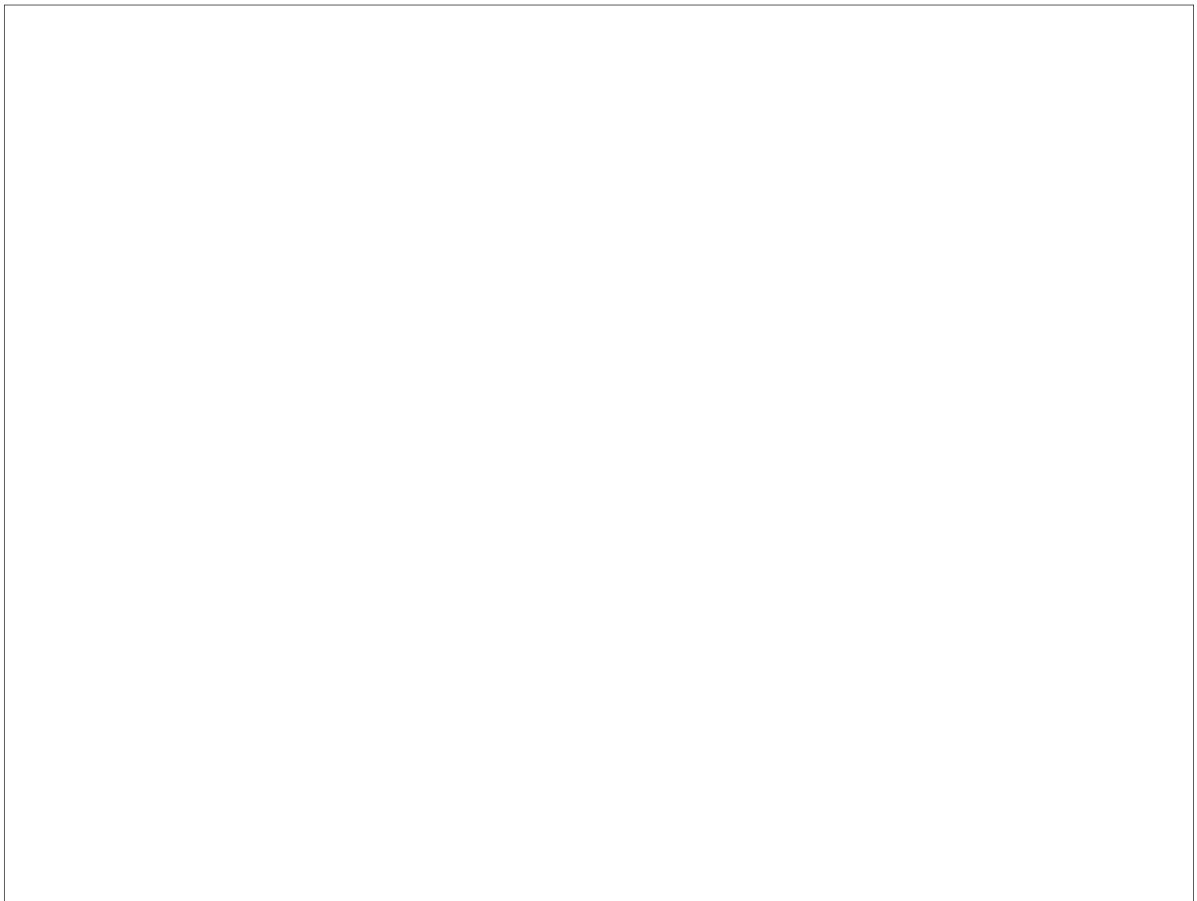
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AUTOMATED FIELD PROCESSING TERMINALS

The objective of this project, which was to replace obsolete and unsupportable 20 year old electro-mechanical teletype equipment with modern automated message processing terminals, has been accomplished!

Initially the transition was to the Teletype M40 TERP IIA and the Wang/ICT. The TERP IIA is the system installed at most overseas stations and bases while the ICT is being utilized at low volume stations with limited space and/or non-OC communicators. With the deployment of ten Enhanced Terminals (ET) of the 43 procurred, a replacement program for the TERP IIA is underway at selected locations. This replacement program is required prior to 1992 when the manufacturer will no longer provide support for this equipment.

All of these new terminals have greatly enhanced the message processing efficiency at each Station and are capable of electrical interface with other systems to meet field requirements.
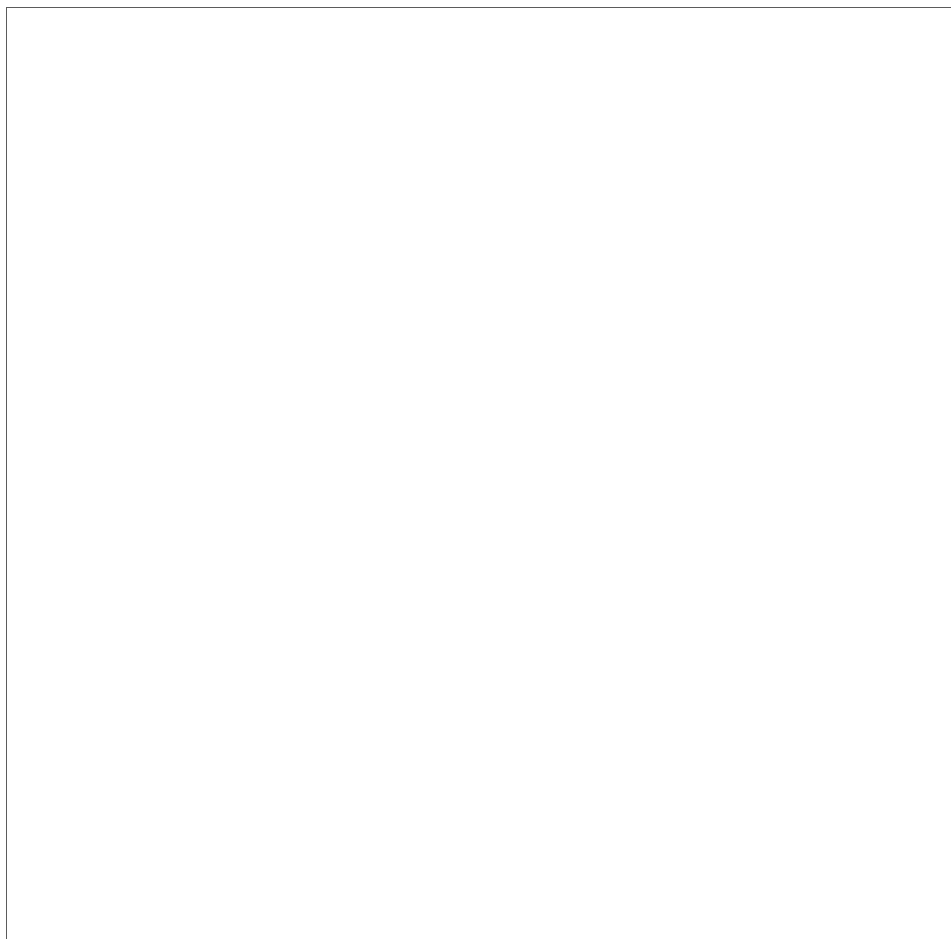
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*Full Operating Capability achieved in 1988.

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HIGH FREQUENCY (HF) RADIO SYSTEMS

The objective of this project is to provide modern HF communications equipment. The new systems operate at higher speeds and provide reliable primary, as well as alternate, circuitry. The field station objective was achieved in 1988 with the deployment of three types of Prewired Radio Systems. These were the :

Compact Radio Systems - Field Stations with limited space.
PRS-6/6A Radio Systems - Typical Field Stations.
PRS-7/7A Radio Systems - Mini-Relay Stations.

*Full Operating Capability achieved in 1988.

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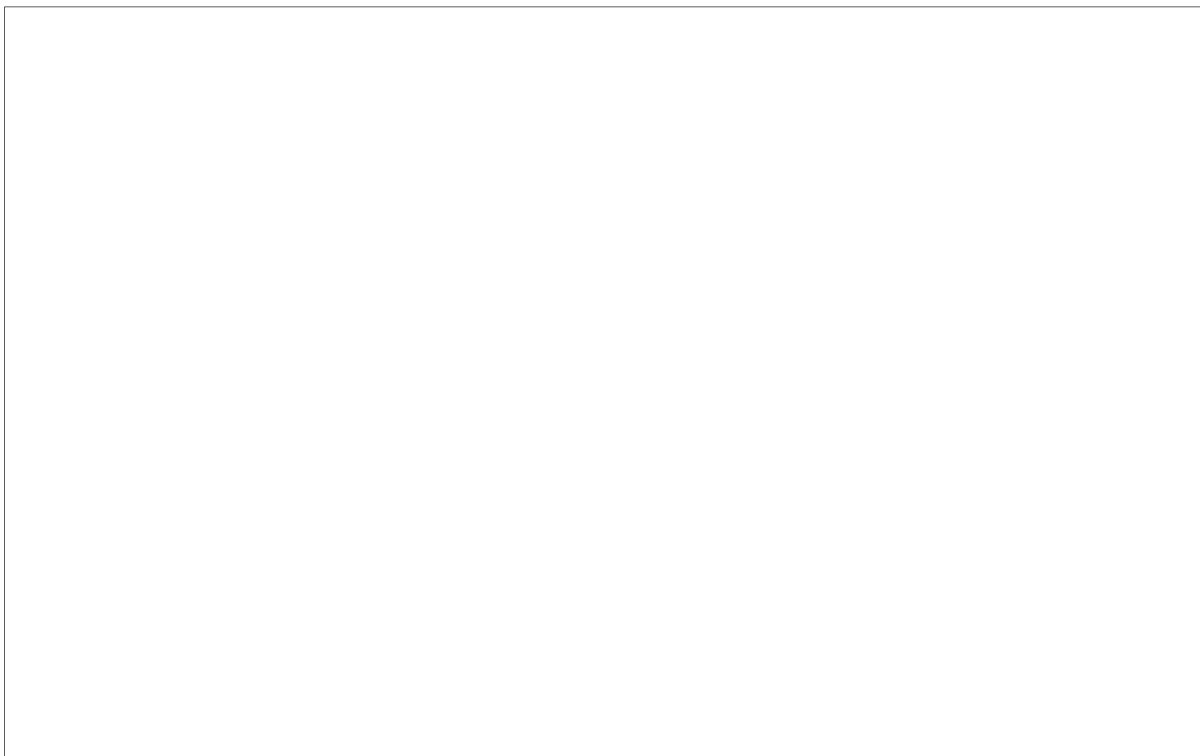Page Denied

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FACILITY PREPARATION AND RENOVATION

Facility renovation is a critical element of the Capitalization Program. The installation of new communications equipment requires some level of preparation work at each site. The broad range of activities may encompass any of the following types of projects at existing

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- upgrading of primary electrical power and/or air conditioning systems;

- upgrading emergency generator systems;

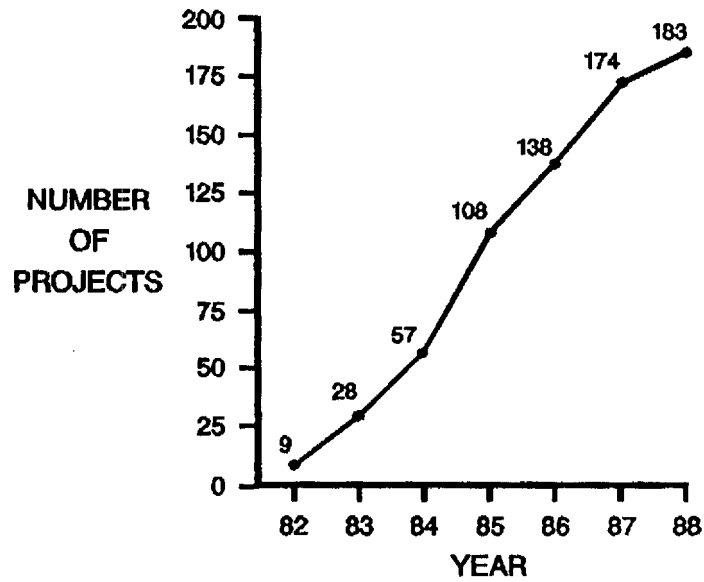- installation of uninterrupted power systems;

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PROJECTS COMPLETED

NUMBER
OF
PROJECTS

Chart data: NUMBER OF PROJECTS (y-axis, 0 to 200) vs YEAR (x-axis, 82 to 88):
- 82: 9
- 83: 28
- 84: 57
- 85: 108
- 86: 138
- 87: 174
- 88: 183

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HEADQUARTERS SECURE TELEPHONE SYSTEM

This project provided secure voice service to all Agency metropolitan area users. Modern, commercial equipment was procured to meet the goal of providing Agency officers access to secure voice communications as needed. At the beginning of 1983, the system consisted of 14 switches and ⬚ instruments. Upon completion at the end of 1985, 25 switches and ⬚ secure telephones provided service to the Headquarters building and 22 metropolitan area locations. Responsibilities for domestic communications were transferred to the Office of Information Technology in 1985.

SECURE VOICE INSTRUMENTS INSTALLED
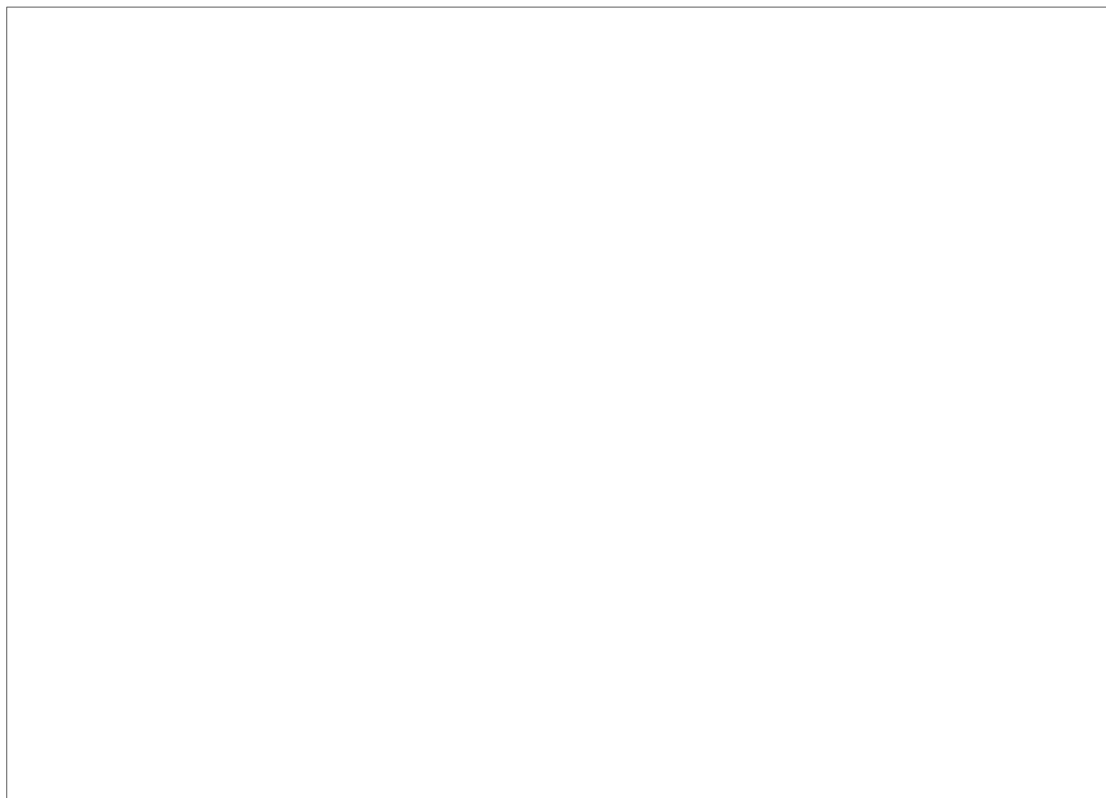
*Full Operating Capability achieved in 1985.

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