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ADVANCED COMPUTER TECHNIQUES CORP ARLINGTON VA  
RESEARCH EFFORT TO DEVELOP OPERATIONAL IMPROVEMENTS TO BIOLOGIC--ETC(U)  
JUL 76 W H SMITH

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RESEARCH EFFORT TO DEVELOP OPERATIONAL IMPROVEMENTS  
TO BIOLOGICAL RECORDS

ANNUAL REPORT  
1 September 75 - 30 August 76

ACT TECHNICAL STAFF

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Principal Investigator

July 29, 1976

Supported by

U.S. ARMY MEDICAL RESEARCH & DEVELOPMENT COMMAND  
Washington, D.C. 20314

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Research Effort to Develop Operational Improvements to Biological Records.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Synopsis of activities performed by Advanced Computer Techniques Corporation in developing a new biology test system.		

FOREWORD

The present contractual effort is a continuation of a research project initiated in August of 1967.

This research is conducted under the overall congingance of Col. Craig J. Canfield, M.D., Director of the Division of Medicinal Chemistry, and is conducted under the immediate direction of Lt. Col. David Davidson, head of the Department of Biology.

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## I. INTRODUCTION

Walter Reed Army Institute of Research (WRAIR) had developed a complex network of computer programming systems for the storage, retrieval and association of chemical structures information and related data resulting from biology tests. These tests were (and are) performed at various medical schools and other laboratories and the results reported to WRAIR. Walter Reed is faced with accomodating it into a format that can be processed and evaluated at WRAIR.

Since August 1967, Advanced Computer Techniques Corporation has been providing consulting services to WRAIR staff in the implementation of computer based systems to quantify and generally assist the research efforts conducted by the Division of Medicinal Chemistry.

During the contractual period covered by this report the following efforts were enacted.

- A. Modifications to programs in the new CDC 3500 biology system.
- B. System and program documentation.
- C. Specifications for modifications to Rane system on Univac 1108 in Miami.
- D. Provide production assistance as required.

## II. OBJECTIVES

- A. Accomodating changes in laboratory procedures employed by medical researchers to the biology systems.
- B. New tests systems implemented as new research is undertaken.
- C. Documentation of biology system.

## III. ACCOMPLISHMENTS DURING THE YEAR

- A. Parallel processing of new biology system was started but not completed due to the delay in development of the chemistry system.
- B. Modifications to the following programs for addition of new test system and addition of new laboratory codes.
  - (1) Pre-processor
  - (2) Edit
  - (3) Match/Merge on Sample Number
  - (4) Update

- C. System and program documentation for the new CDC3500 biology systems is approximately 80% completed.
- D. Program specifications for modifications to Rane Edit on the Univac 1108 in Miami were completed.
- E. Production assistance was provided as required during the contract year for both regular system production and testing.

#### IV. CONCLUSIONS

At the end of the contract year, the new biology system was completed. The delay of development in the chemistry system, which was to provide the index files for interfacing the biology, inventory and chemistry files has delayed the production running of the biology system. Modifications to the new system for addition of a new test system at Rane Laboratory and addition of new laboratory codes in Rane, Schistomiasis and Agar test systems were completed.