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INDIVIDUAL TECHNICAL ASSISTANCE REPORT

*In Response to a Request for Technical Assistance*

*by the*

Tennessee Law Enforcement Planning Agency

October 26, 1973

NCJRS

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ACQUISITIONS

*Prepared by:*

Public Administration Service  
1313 East 60th Street  
Chicago, Illinois 60637

(Per Contract J-LEAA-015-072)

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I. PRELIMINARY INFORMATION

A. **Consultant Assigned:**

Thomas Trimbach  
Police Consultant  
Okemos, Michigan

Roy D. Mayne  
Staff Associate  
Public Administration Service

B. **Date Assignment Received:**

October 5, 1973

C. **Date of Contact with LEAA Regional Coordinator:**

October 5, 1973

D. **Dates of On-Site Consultation:**

October 8-12, 1973

E. **Individuals Contacted:**

Hugh Mott  
Chief of Police  
Nashville/Davidson County  
Metropolitan Police Department

John A. Sorace  
Assistant Chief of Police  
Nashville/Davidson County  
Metropolitan Police Department

Buford Wood  
Assistant Director of Data Processing  
Nashville/Davidson County  
Metropolitan Police Department

Francis W. Norwood  
Director  
Tennessee Law Enforcement Planning Agency

Gary Hall  
Police Research Analyst

Rod Smith  
UNIVAC Systems Engineer

**II. STATEMENT OF THE PROBLEM**

**A. Problem as per Request for Technical Assistance:**

To determine the degree with which the present computer system of the Nashville/Davidson County Police Department will meet future capabilities and needs; the degree of transferability to other locations or types of computers; and the degree to which the objectives of Phase III are compatible with the Master Plan developed by the State of Tennessee.

**B. Problems Actually Observed:**

As stated.

**III. FACTS BEARING ON THE PROBLEM**

See attached Consultant's Report.

**IV. DISCUSSION OF POSSIBLE COURSES OF ACTION**

See attached Consultant's Report.

**V. RECOMMENDED COURSE OF ACTION**

See attached Consultant's Report.

CONSULTANT'S REPORT

## I. INTRODUCTION

This report is the result of a request for technical assistance to perform a detailed analysis of the Nashville/Davidson County Metropolitan Police Department's computer system. Assistance was requested by the Tennessee Law Enforcement Planning Agency and the Nashville/Davidson County Metropolitan Police Department through the Technical Assistance Division of the Law Enforcement Assistance Administration, Region IV.

The technical assistance project requirements are outlined as follows:

1. An analysis of the system to determine what it is doing, and its future capabilities.
2. The degree of transferability of the system to other locations or types of computers, and procedures which may be taken to increase transferability.
3. Evaluate Phase III objectives as to their achievability, adherence to the Master Plan, and the accuracy of cost and time projections.

Work was begun on October 8, 1973, and completed October 12, 1973. All comments made in this report are the results of this technical assistance effort and are to be considered as recommendations. They are not to be considered as policy guidelines from LEAA.

## II. DOCUMENTS REVIEWED

- A. Nashville Metropolitan Police Department Grant Application Number 31A-73-4.02-C1 for third-year funding of their computerized criminal justice system.
- B. Criminal Justice Information System Master Plan dated April 1973.
- C. Data Processing Procurement Specifications by the Metropolitan Government of Nashville and Davidson County to provide the Metropolitan Police Department with a computer hardware configuration meeting the specifications contained in the invitation to bid.
- D. Initial UNIVAC proposal recommended for an electronic data processing system prepared for the Metropolitan Police Department by UNIVAC dated March 15, 1971.
- E. Bid Comparison Analysis—An evaluation of proposals for a criminal justice information system for the Metropolitan Government of Nashville and Davidson County submitted on May 5, 1971.
- F. UNIVAC Contracts and Amendments.

### III. GENERAL COMMENTS ON THE GRANT APPLICATION

#### **Time Relationship of the Grant Application to the Five-Year Program**

It is difficult to make a time phased comparison between this grant application and the five-year master plan. Generally, it is considered to be the third-year of the five-year program.

#### **Multi-Year Program Commitment**

In order that several governmental agencies can evolve a major undertaking of this magnitude in accordance with the five-year master plan, it is recommended that they be given a multi-year letter of intent in order to have some assurance that the program will be carried to completion. This is necessary for planning, personnel, equipment, and so forth.

#### **Intent of the Twelve-Month Grant**

There is not a set of objectives in the front of this grant application to relate the third-year grant to the plans of the other four years. However, it is our assessment that this third-year grant is part of the Phase I and Phase II objectives as defined on page 75 of the master plan. There are no efforts planned which are considered Phase III as defined in the master plan. It is not clear, however, what bench mark is intended to define the completion of Phase II.

#### **Coordination with Other Agencies**

One of the main efforts in this grant application for work to be performed includes the hiring of sufficient technical personnel to establish and furnish the necessary system documentation since some of this data can and should be useful to other police organizations interested in implementing similar systems. A coordination team should meet monthly to establish guidelines for any potential transferable documents.

#### **Choice of Computer Equipment**

The UNIVAC, as it exists in the Metropolitan Police Data Center, is considered by us to be very appropriate for the purpose in which it was intended. It is economical, efficient, and versatile to the extent necessary. It also possesses adequate growth potential.

#### **Status of Software Documentation**

Software documentation consists mainly of general systems documents. Detailed systems documentation and program documentation must be developed during the turn of the year in order for the system to be transferable or usable within certain constraints during the year. It is recommended that the State Planning Agency impose this requirement upon approval of the grant.

#### **Computerized Criminal History (CCH) Segments**

There is adequate data collection and input design capabilities in this system to acquire, store, and manipulate the reporting warrants, arrests, and communications data required for the construction of computerized criminal histories in accordance with the National Standards of the NCAA and LEAA. These segments are designed to be machine-connected regardless of when they are combined with a common offender identification number. It is recommended that where possible, all agencies use this common offender number on the forms that are used as source documents.

#### **Offender Based Tracking Statistics (OBTS) Output**

With programmatic identification stripping in accordance with Project Search Report Number 4, the computerized criminal history (CCH) records existing at any point in time can be statistically arrayed as a machine output. The recording statistics can be analyzed in Tennessee, forwarded by magnetic tape to LEAA, and forwarded to NCIC in compliance with UCR requirements.

#### **Grant Budget**

After careful analysis, it is our opinion that the \$432,161 is adequate for the amount of work described in the grant application. It should be noted that the bulk of these funds is in the form of pass-through money to UNIVAC for computer rental, and that a relatively small amount of the budget is allocated to increase personnel resources.

#### **Grant Schedule**

Efforts called for within this grant application are based upon the hiring of additional personnel. Because a three-month delay in starting the grant has already been experienced, it is recommended that either (a) additional personnel than those specified in the grant application be hired to assist in completing the projects within the specified time frame or (b) the completion date be extended by the State Planning Agency from July 1, 1974 to a date twelve months after additional staff are acquired.

#### **Grant Personnel**

There is relatively little support being furnished currently by UNIVAC as compared to when the system was first installed. Therefore, the additional personnel to be hired as a part of this grant should be approved as requested. It is our opinion that this is a minimum list of additional personnel to accomplish the projects as outlined in the grant application.

#### **System Design Concept**

All aspects of the system design concept are technically sound. The individual data bases screen for operator instructions, and other features of the system are necessary, appropriate, and effective for long-term utilization.



**Adequacy of Terminals**

With the addition of 10 terminals anticipated by this grant, our analysis of their locations, quantities, and functional assignments is that they are technically appropriate, and we recommend the additional 10 terminals be utilized for funding under this grant.

**Scope and Adequacy of Data Files**

We have reviewed the various computer data bases from the standpoint of the number of records that are planned to be computerized. The existing UNIVAC system can adequately handle the size of these data bases for the number of records to be maintained. The data bases as designed have the required data elements to appropriately define the criminal justice transactions in accordance with NCIC and LEAA requirements. Additional data elements have been added for Tennessee's unique needs and necessary business administration activities.

**Data Processing Priorities**

Queueing problems on this system now, and as foreseen by all known requirements at this time, are virtually nonexistent because of the computer configuration and the fact that almost all work is conducted in real time. Therefore, programmatic priority control of data processing is not considered relevant.

**Need for a Real Time System**

Based on an analysis of the loads, number of terminals, video display of operator instructions and procedures, as well as other technical considerations, real time loading of the initial data (rather than batch loading) is considered economically appropriate. Real time query response of data already on computer file is obviously a necessity in most police activities. It is recommended that the existing NCIC line from the system be kept in accordance with NCIC requirements.

**Administrative Functions and Routines**

There is a certain amount of related general management and business data which should be computer processed in support of the overall operations. Vehicle dispatching, budget controls, staffing patterns, and so forth, are examples of appropriate law enforcement related functions which should be continued as a part of this grant application.

**Video Display Units**

The type and quantity of the UNIVAC terminals, locations, and intended purposes have been analyzed and are considered necessary and adequate. The 10 additional terminals should complete the requirement for the city and countywide coverage concerning the collection of Computerized Criminal Histories (CCH) and related information for computer processing and the necessary query response.

**Summary and Conclusions**

There are some minor definition and terminology clarifications required in this grant application, but not of such significance as to require rewriting the entire grant. When some additional matters are clarified in the master plan as recommended above, those same clarifications can and should apply to this grant application. We recommend that this grant application be approved in the amount of \$432,161 and that additional personnel be acquired to complete the work contained therein. It is recommended that in approving this grant, interagency coordination of documentation be required. It is also suggested that approval be contingent upon complete documentation delivery.

#### IV. COMPARISON OF GRANT APPLICATION WITH MASTER PLAN

After reviewing the master plan and the grant application as separate documents, a brief summary follows comparing one document with the other on certain issues.

##### **Time Phasing**

Time phasing in the master plan and this specific grant application should be clarified. We recommend that this grant application be considered Nashville's third-year effort of the five-year program.

##### **Priorities**

The priorities of the State Planning Agency should be taken into consideration in any five-year plan being prepared by local governments. It does not appear necessary to us that within a one-year grant effort priorities need be imposed upon a local government agency. Therefore, we do not consider them applicable to this grant application.

##### **Computerized Criminal History (CCH)**

With clarification of the definition of CCH and its segments in the master plan, we recommend that this grantee be authorized to continue processing CCH data for offenders arrested within their jurisdiction.

##### **Offender Based Tracking Statistics (OBTS)**

We recommend that the grantee be authorized to extract periodic statistics from the compilation of CCH records. This is necessary to meet LEAA requirements, OBTS requirements, NCIC-UCR requirements, and measure local crime analysis.

##### **Administrative Routines**

Little discussion is contained within the master plan concerning these mandatory programs as set forth in the application. We recommend that they be considered as necessary efforts and be approved in the grant application.

##### **Future Years (Expandability)**

Concerning the grant application to the master plan, it is considered that the size of the computer and the number of terminals are adequate for the full five-year requirement. Additional documentation will be required in the fourth and fifth year based on the requirements projected in the master plans for those subsequent years.

## V. RESPONSE TO OBJECTIVES OF TECHNICAL ASSISTANCE

### Objective 1

The existing system was reviewed and was found to meet the objectives of the Criminal Justice Information System's master plan. Future projects as outlined in the grant application were also found to be written within the confines of the seven objectives of the master plan.

### Objective 2

The degree of transferability of the Nashville/Davidson County Metropolitan Police System is dependent upon interpretation of "transferability" and "system." If transferability is taken to mean transferring both the computer and the police functions operating on the computer to another location, then this can be accomplished with relative ease.

However, when transferability refers to transferring only the police functions performed by the computer to another location, then additional dimensions are added to the problem. If the recipient has the same computer configuration as exists in Nashville, i.e., a UNIVAC 418-III, the transfer can be made without difficulty. However, when the recipient has a computer that is of a different manufacture, and/or different configuration than the one that exists in Nashville, a considerable re-programming effort would be required.

As mentioned previously, documentation of the existing system is not complete. This should be made a stipulation of the work to be performed in the upcoming year. The original LEAP (Law Enforcement Application Program) as given by UNIVAC was properly documented. As a result of insufficient staff, however, modifications to the package to meet the revised needs have not been documented.

### Objective 3

This grant application should be considered as the third-year of the five-year master plan, not as Phase III of the master plan. Hence, it was evaluated using that assumption. We also recommend that prior to implementing Phase III the criteria for the termination of Phase II be established. The objectives of the grant application for the third year are indeed ambitious. However, with the additional staff requested and based on past performance, it is not unreasonable to expect the objectives to be achieved within the estimated costs.

**END**

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