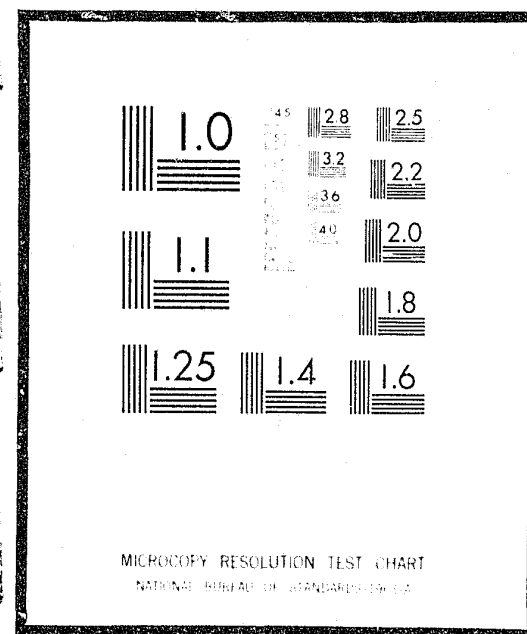


# NCJRS

This microfiche was produced from documents received for inclusion in the NCJRS data base. Since NCJRS cannot exercise control over the physical condition of the documents submitted, the individual frame quality will vary. The resolution chart on this frame may be used to evaluate the document quality.



Microfilming procedures used to create this fiche comply with the standards set forth in 41CFR 101-11.504

Points of view or opinions stated in this document are those of the author(s) and do not represent the official position or policies of the U.S. Department of Justice.

U.S. DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION  
NATIONAL CRIMINAL JUSTICE REFERENCE SERVICE  
WASHINGTON, D.C. 20531

2/28/77

Date filmed

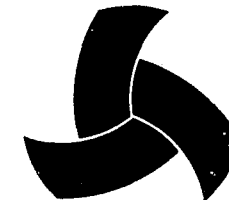
72DF-06-0051

UPGRADE RESPONSE OF  
CRIMINAL JUSTICE SYSTEM

FINAL EVALUATION

Prepared by:  
DALLAS AREA CRIMINAL JUSTICE COUNCIL 4

36524



Dallas Area

Criminal  
Justice  
Council

2008 Jackson, 75201 214/651-1461

Copies:  
Greenfield  
Chelmsbury  
Hup  
Loomis  
original: library

June 24, 1975

NCJRS

SEP 16 1976

ACQUISITIONS

Mr. Richard T. Loomis  
The Mitre Corporation  
1820 Dolley Madison Blvd.  
McLean, Virginia 22101

Dear Mr. Loomis:

Enclosed is the final evaluation report for Dallas County's Upgrade  
Response of Criminal Justice System Project.

If you have any questions or comments regarding this report, please  
let us know.

Sincerely,

*Ray Ryan*

Ray Ryan  
Systems Development Coordinator

RR:jb

Enclosure



12-06-007

DALLAS -  
UPGRADE RESPONSE OF CRIMINAL JUSTICE SYSTEM

FINAL EVALUATION

Prepared by: DALLAS AREA CRIMINAL JUSTICE COUNCIL

June 23, 1975

## FINAL EVALUATION

Project Title: Upgrade Response of Criminal Justice System  
Funding Date: December 1, 1972  
Evaluation Period: December 1, 1972 - December 31, 1974  
Grantee: Dallas County, Information Services Department

### Background Information

In 1972, the year in which the Impact Program was launched in Dallas, the Dallas County Information Services Department reported that the transaction volume of its teleprocessing network had increased to such an extent that inquiry response time had been seriously degraded. As of the end of 1972, terminal responses to criminal justice system inquiries were averaging 20 seconds.

By the end of the first two years of implementation of the Regional Criminal Justice Information System at Dallas County, the number of terminals installed in Dallas County departments and approximately thirty law enforcement agencies in the North Central Texas Region had exceeded 75.

As terminals were steadily added to the network, volumes of inquiries likewise multiplied to around 16,000 transactions daily by early 1973. During this period of development of the data base of criminal justice files and applications, more user agency terminals were being tied into the network and Dallas County predicted additional strains on the communications system as the expanded information requirements of the Impact program were considered.

In order for Dallas County to have maintained the existing level of system performance (allowing no increase in terminals, inquiries, or complexity of inquiries) an estimated 128,000 bytes of additional core storage would have been required. This would have resulted in an estimated \$57,000 increase in the annual cost of operating the County computer system, and subsequent grant requests to the State.

An alternate decision was made instead, to install a software package (set of computer programs) consisting of a data access method and its companion teleprocessing monitor, which had been determined by Information Services department management to offer solutions to the two-fold problems of improving inquiry response time and continuing system expansion.

#### Implementation

In October, 1972, Dallas County applied for an Impact grant through the Office of the Governor, Texas Criminal Justice Division (T.C.J.D.) to purchase the Amigos-Hyperfaster software system from the Compress Corporation.

Funding was requested to purchase the software package consisting of a data access method and tele-processing monitor at an initial cost of \$38,000 plus installation costs including personnel and computer testing for an estimated \$104,303 total first-year budget (federal, state and county).

Approximately 347 programs required modification to accomodate the new software system, including 203 criminal justice applications. Implementation began December 1, 1972, and was completed by January 31, 1973--two months less than projected.

#### Objectives and Evaluation Measures

- A. The primary objective of this project was to reduce inquiry response time from the 1972 average of 20 seconds to a maximum of five seconds and maintain the reduced level.

Other results to be achieved through installation of Amigos Hyperfaster II, according to the grant applications, were:

- B. Expand the growth potential of the Regional Criminal Justice Information System to be measured by (1) ability to add terminals, (2) ability to add applications, and (3) ease of maintenance.

- C. For Adult Probation, the project "will enable identification of the Impact offender throughout the post-adjudication process".
- D. For the Court System, the project will "flag each offender as he enters the system, track the offender through the court process and identify the Impact offender's records, . . . .increase efficiency of judges and attorneys involved in the Impact project for the Criminal District Courts".
- E. Reduce Book-in processing time at the County Jail.

The grant applications indicated that the following documentation would be provided for the purpose of evaluation.

- (1) "System Statistics" - a daily-prepared computer tabulation summarizing transaction volumes, average run time, average wait time and average response time. (Report heading actually entitled "H F Statistics Report").
- (2) "Teleprocessing Report" - a daily-prepared computer tabulation, which lists in detail the same information as the above report. (Report heading actually entitled "Terminal Distribution Report" in the grant application example.)
- (3) External evaluation, relative to (a) average response time to inquiries and (b) reliability of the system, to be provided by thirty (30) law enforcement users in the North Central Texas Region.

#### Evaluation

Although daily computer-generated statistical reports were furnished with quarterly reports as documentation of system growth and activity, since numbers of days represented in these reports ranged from zero to twenty, it was considered impractical to attempt to verify the accuracy of "interpolations" of numbers of transactions, or average response times by month reported in the Final Progress Report (Attachment A).

According to figures computed by grant personnel (Attachment A), response time ranged from 1.5 seconds to less than 2 seconds over the period of the grant (December 1, 1973 through November 30, 1974. Calculations of transactions processed indicated an increase from 7,000 to over 28,000, while numbers of local terminals increased from 91 to 175 between October, 1973 and November, 1974.

Relative to system growth in terms of applications added to the system the grantee progress reports indicated that the following subsystems were added: (a) Warrant System, (b) Constables Civil and Criminal Warrants System and (c) a Property Tax System.

The relevance of the Property Tax System, which was implemented per the 3rd quarter 1973 report, to the goals of the Impact program and this project was explained as follows: "During the third quarter of 1974 a major tax system was implemented. This system maintains, through on-line updates, the tax information on all real property in Dallas County. At implementation there were approximately 600,000 pieces of property on file. Both the tax and voter registration files are used by the criminal justice users for identification verification of defendants and witnesses, etc. Such systems, though not specifically addressed under this project as an objective, operate within the environment effected by it and must be considered as an increased workload on that environment in evaluating any statistics on system behavior. Any file of this magnitude is of major consideration to overall system load."

Other measures of project performance, established prior to implementation, require subjective judgment in order to determine results. The Dallas County Information Services Department has offered the following assessment of ease of maintenance and user satisfaction:

"Hyper-Faster has proven to be a reasonably easy system to maintain in comparison to the past systems used by persons now employed at Dallas County. Ease of maintenance is evaluated in a subjective manner. Substantiation of this evaluation procedure is proven by the high quality personnel employed as Systems Programmers at Dallas County.



1) Ability to add terminals

Hyper-Faster can support a maximum of 32,767 terminals, limited by CPU core availability. The core requirements are 128 bytes per terminal and 2200 bytes per line. A line can support either 32 remote devices or 63 local devices. Device types may not be mixed within a single line group.

2) Ability to add additional applications

Now applications can be added with the limits of 32,767 inquiries and 32,767 files. Affecting these absolute limits is the CPU processing capacity, a core requirement of 16 bytes per inquiry and 128 bytes per file. Additionally there is a file index core requirement of approximately 2000 bytes per 800 million bytes on file data.

3) Ease of maintenance

The modification of the system to redefine terminal access tables, automatically open files or enable and disable terminals may be accomplished at system initiation through the system initiation facility. A System Control Transaction (SCTL) is also available to dynamically perform these functions and the addition of new inquiries without bringing down the entire system.

To add files or terminals requires a one hour assembly and link. The new files and terminals may be included during the next system initiation.

The primary effort of Dallas County Software personnel has been to tailor Hyper-faster to our specific requirements in order to improve response times and enhance system performance.

An external evaluation by the user agencies has not been formally performed by Dallas County. Through close contact with the various user agencies, response times and system reliability have always been very satisfactory. These contacts have been



made through telephone conversations and meetings of committees of the same users formed for other purposes within the region and at the various user group conferences. Establishment of a specific team to evaluate a system which is obviously satisfactorily serving the users was deemed unnecessary at this time."

Although the "Teleprocessing Report" (which was to indicate "up time") was not received during the project's duration, the following information has since been provided by the grantee as evidence of the amount of system "up time" during five months of the 24-month grant - July, 1974 through November, 1974 - and explanation of reasons for discarding reports prior to July, 1974.

"Due to new system development along with the implementation of IBM's OS and VS the format and data collection procedures for this report were changed in June 1974. The previous reports could not be properly compared to the new reports and had not been questioned for any of the previous periodic reports, therefore those reports prior to July 1974 were discarded. The following table reflects data from July through November, 1974."

<u>MONTH 1974</u>	<u>SYSTEMS AVAILABILITY</u> <u>(PERCENTAGE UP TIME)</u>	
	<u>PRIME SHIFT</u>	<u>SECOND SHIFT</u>
JULY	95.93	96.86
AUGUST	94.61	97.71
SEPTEMBER	95.44	96.26
OCTOBER	93.05	94.82
NOVEMBER	95.41	95.30

The following results, although lacking supportive documentation, are considered to be so significant in terms of their impact upon critical problem areas in the criminal justice process, that they are presented here as the most concrete evidence available to illustrate the contributions of the Upgrade Criminal Justice System Response project.

It is assumed that these figures were estimated by the grantee. They, nonetheless, reflect positive improvements in some of the major bottleneck areas in the processing of cases and offenders and maintenance of these results should, in time, produce a significant impact on the efficiency of the Dallas criminal justice system.

Validation of these results will be achieved through evaluation of other criminal justice projects and examination of statistical indicators of departmental performance.

1. Reduced processing time for Impact Offenders being booked into the County Jail. AMIGOS-HYPERFASTER II has reduced response time for data inquiry so the book-in procedure is shortened. (Reduction from 10 minutes to 3 minutes)
2. Increased efficiency in the judicial system has complemented the efforts of personnel involved in the Impact project for the Criminal District Courts. Judges and attorneys access the data in the Court Sub-System approximately 5,000 times a day. By reducing the response time to 5 seconds, a significant time savings (approximately 20.83 hours per day) was realized for court personnel.
3. Increased operating efficiency of area law enforcement and criminal justice agencies.

Around 30 Dallas area law enforcement and criminal justice agencies have access to the Criminal Name Index File, which is on-line at the Dallas County Regional Criminal Justice Computer Center. A response time of 5 seconds or less per inquiry is vital to the efficiency of the inquiring agency and to the safety of the officer in the field.

4. Complement efforts of the Impact project carried on by the Dallas County Adult Probation Department.

Use of the computer system has enabled the Adult Probation Office to have more accurate records. If 30 seconds can be saved on each inquiry into and update of the Adult Probation System, around 133 man hours will be saved annually in this office alone.

A special condition by the Texas Criminal Justice Division in the Grant Award Statements for both grants, stipulated that the Grantee perform a cost benefits analysis, (thoroughly documented in each Quarterly and Final Report) comparing Amigos to additional storage devices. This analysis could not be located in the Quarterly Grantee Progress Reports or Final Report.



#### Summary

The Upgrade Response project has apparently had significant results, particularly in reducing inquiry response time for county users while the volume of activity has steadily increased in terms of numbers of terminals and in numbers of transactions.

Since an external evaluation was not conducted, very little supportive, statistical data were furnished in compliance with the grant evaluation component, and a cost benefits analysis was not prepared, in compliance with "Special Conditions", this report is essentially presented as a subjective assessment of project results by the grantee.

ATTACHMENT A

<u>MONTH</u>	<u>NUMBER OF TERMINALS</u>	<u>NUMBER OF TRANSACTIONS</u>	<u>AVERAGE RESPONSE TIME</u>
OCT 73	91	7020	1.5
NOV 73	102	N/A	N/A
DEC 73	113	10000	1.62
JAN 74	122	15000	1.13
FEB 74	126	13700	1.13
MAR 74	135	14500	1.62
APR 74	136	20900	1.23
MAY 74	142	16000	1.40
JUN 74	142	17900	1.30
JUL 74	142	15700	1.14
AUG 74	157	27100	1.10
SEP 74	173	32000	1.10
OCT 74	173	32000	2.31
NOV 74	175	28600	1.94

The number of terminals is the count of local (directly connected) terminals installed at the end of the month.

Grant application states in excess of 143 terminals served which includes those users with access via the regional switcher.

The number of transactions is interpolated to eight hours from the time spans available on the "HF Statistics Report."

The average response time is for the same period used for transaction counts taken from the "HF Statistics Report."

The supporting computer reports for this table will be found in previous quarterly reports on this project and at Dallas County.

**END**

7. 10/10/10