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## THE DEVELOPMENT OF A COMPREHENSIVE CRIMINAL JUSTICE AND HIGHWAY SAFETY INFORMATION SYSTEM

Thomas O. Meadows, Vice President  
INTERLOCK, Incorporated

David B. Eberdt, Administrator  
Criminal Justice and Highway Safety  
Information Center, State of Arkansas

### A CASE STUDY

The following is a description of the evolution of the Arkansas Criminal Justice and Highway Safety Information System -- what it is and what it will be.

This Center is unique because it has been built on certain principles which are important to serving fully and usefully State and local criminal justice agencies. What are these principles?

First, two general categories of information -- criminal and traffic records -- are provided by a single agency and combined in a single system.

Second, the Center's goal is to provide both the "now" data needed on-demand by officers throughout the State to handle properly thousands of individual situations each day, and statistics on crime, offenders and traffic accidents important for measurement of problems and planning.

Third, what the Center does and how it is run is firmly rooted in law. A comprehensive legislative Act has been passed to specify the mission of the Center, to establish a politically independent Supervisory Board, to both authorize and restrict the types of records we can maintain, to require reporting of data by agencies and to prescribe penalties for misuse of the information.

The operations of the Center have just begun this year, but it has come a long way from inception to where it is today. Efforts really began in the Fall of 1969, when the Arkansas Crime Commission and the Governor's Highway Safety Coordinator jointly recognized the need for an information system to serve criminal justice users. At that point, there were a number of important, unanswered questions:

What should be the scope of an information system -- in Arkansas, to meet Arkansas' needs?

What will it cost?

How long will it take?

Which should be the "home" agency responsible for the System?

How is such a System organized and staffed?

INTERLOCK, Incorporated, had a key role in finding answers to these questions and in helping to make it all happen.

Beginning in November, 1969, INTERLOCK covered the State in search for answers to these and similar questions. Representatives from every branch of criminal justice and traffic safety administration (both operating and planning agencies) contributed to the evolution of the system design.

In INTERLOCK's study it found the environment especially conducive to rapid systems development and successful implementation.

1.) A skeleton computer-based communication system was already operating out of the State's Department of Revenue. It was maintaining limited information on drivers' licenses and motor vehicle registrations. These files were available for inquiry from the fourteen State Police District Offices. 2.) There were no automated criminal justice records systems nor had there been any effort under way at any level of State or local government to create such systems. Consequently, the new system design proceeded without having to modify or integrate an existing system into the State plan. 3.) Arkansas represents a relatively small geographic area. From the City of Little Rock, located in the center of the State, no city is located more than 180 miles away. This fact had a significant influence on decisions regarding the number and placement of terminals and the number of field personnel required to support the information system. 4.) INTERLOCK's study found that the projected volume of traffic and crime activity could be satisfactorily handled by a single integrated computer system. 5.) Most important, perhaps, every user agency expressed a high level of interest in the system's design and each pledged its support in system design and development.

In May, 1970, the study results were presented to the Arkansas Commission on Crime and Law Enforcement and the State Highway Safety Planning Agency. The results of that study revealed that a comprehensive criminal justice and highway safety information system was not only feasible, but was needed, wanted and affordable.

The report included a detailed schedule of design, development and pilot testing activities, as

well as a distribution of work assignments. The schedule revealed that the system could be developed and pilot-tested by May, 1972. The report included a comprehensive schedule of projected Phase II development expenses and income sources.

The heart of the report was a conceptual design reflecting the use of both criminal justice and traffic records, as well as a substantial statistical data base. The offender and driver related records were to be accessible via a number of unique keys. One was the driver license number; another was the social security number; a third was the name, race, sex and other identifiers, if available. Still another was a unique state identification number. Property identification indexes included both vehicle registration number, license plate number and stolen property identification descriptions. The data files were to include warrants, court cases pending, prison-probation-parole, criminal histories, stolen property, driver's licenses, vehicle registrations, driver's suspensions and revocations and driver histories.

Other recommendations were: 1.) The system design should support both cathode ray tube and hard copy terminal devices. 2.) Great emphasis should be given to building into the system security features through appropriate policies and program controls. 3.) Each terminal site must have the capability of entering urgent, or "time critical" data directly into the system. As a result, the system was designed to support on-line entry of new records, modification of existing records, checking of the status of existing records and record deletion capabilities. Low priority or less time-critical data was to be submitted to the Center and entered in a batch process. 4.) It was also recommended that the system provide for an extensive message switching capability to support inter-state message handling and communications to and from NCIC. We also believed that an important feature should be the monitoring of all NCIC messages by State Police Headquarters. The conceptual design was reviewed and approved by all of the affected operating and planning agencies. The decision was made to begin immediately with the detailed design, programming and pilot testing of the criminal justice modules.

In order to minimize costs and comply with the State's desire to reduce the proliferation of computers, it was decided that all development work would proceed on the existing Department of Finance and Administration computer facility. Shortly after the project began, the State consoli-

dated two existing computer centers, one at the Department of Administration and another at the Department of Revenue, placing the combined operation under Mr. Don Martin, head of the State's Administrative Services Division. Mr. Martin and his staff played a key role throughout the project, serving as an ex-officio member of the User Advisory Council, providing a home for the project and furnishing the State's programming and computer service support. When the project began, Mr. Martin's computer center consisted of an IBM 360 Model 40 with a 128K core memory, data cell and five 2311 type disk storage devices. The communications system was handling approximately 1200 inquiries per day. Today, Mr. Martin's computer center includes an IBM 370 Model 145, 392K with a billion characters of on-line file storage. The system has grown in use from approximately 1200 transactions per day in October, 1970, to approximately 12,000 inquiries per day in September, 1972.

The development of the Criminal Justice Information System was endorsed by both former Governor Winthrop Rockefeller and the present Governor, Dale Bumpers. In the fall of 1970, while development work was proceeding on schedule, a series of activities were initiated to prepare for the upcoming session of the legislature. Budgets were prepared and a number of legislative issues were recognized that had to be answered before the Criminal Justice Information System could be effectively implemented.

Before beginning operations, all those involved with this project felt that clear, legislative authority was needed to establish the Information Center as a legal entity. Provisions had to be spelled out for the security and privacy of information. Responsibilities for administrative and policy control of the Center should be defined by law. Mandatory reporting of needed data by user agencies would be necessary to assure a successful operation. Authority was required to establish a Statistics Division within the Information Center. Penalties for misuse of sensitive information had to be explicitly defined by law. We wanted to be sure to protect the rights of a public which was becoming increasingly aware and properly intolerant of the invasion of privacy, and to avoid misunderstanding of the legitimate role of the planned Center.

The legislation was drafted by members of the project team and the State Crime Commission and reviewed with the Governor who gave it his full support. The Project team was confident of speedy passage of the bill. Soon, however, the newspapers

proclaimed the spectacular failure of this bill on the floor of the Arkansas Senate. This failure was quite obviously the result of inadequately educating the legislature on the purpose and importance of the Center. When such legislation is not completely understood, it cannot be expected to be passed.

The project team went immediately into action. This time key legislators were asked to help draft the bill. It was re-written, strengthened and security and privacy restrictions were further tightened. The Senator who had led the battle to kill the original bill now became its enthusiastic supporter and co-author.

In its second appearance, the bill, now revised and firmly supported, passed both houses of the General Assembly with a lone dissenting vote.

In April, 1971, with the approval of funding by the Department of Transportation, authorization was given to develop and implement the Highway Safety components of the overall system. Driver's licenses, driver history records, and vehicle registrations were all to be integrated into the comprehensive Information System. Driver's license records were to be the basis of the master name file, to which most other criminal and traffic files are indexed. Hence, the Driver Licensing Division was given primary responsibility for creating and maintaining the all-important Master Name File.

There was an intensive effort to clean up the driver license file, which at project start time contained over 20% data error. The driver data was edited time and again until a high level of accuracy and completeness had been established.

Under the present system all driver's license applications and renewals are routinely micro-filmed and the pertinent data is coded for entry into the computer-based system.

Changes to the driver's license are made on-line in the Department's Data Entry Section.

A clerk is responsible for identifying the proper driver license record, making the desired modification and verifying that the change was made properly. A hard copy audit trail is maintained for later reference.

At the time the Highway Safety project began, the State's Driver Control Section was seriously handicapped in its efforts to identify and correct problem drivers. Information on driving history (both the moving traffic violations and accident involvement data) was incomplete, obsolete, fragmentary and difficult to retrieve from massive manual files. As much as six month's backlog of moving traffic violations had accumulated in card-

board boxes because of the lack of file storage capacity and personnel to manage the driver history function.

As a result of the Highway Safety development work, three year's backlog of violations and accident involvement information was microfilmed, coded and entered into the computer-based Driver History System and linked to the expanding Criminal Justice and Highway Safety Information System through the Master Name file record.

Hundreds of thousands of violations are now, for the first time, immediately accessible to the Driver Control Section.

The computer is now used routinely for identifying problem drivers so that positive action can be quickly taken.

Computer generated driver history reports are produced both for use within the State and for mailing to other states where Arkansas drivers have moved and established new residences.

The State's vehicle registration file was converted to the new data base and program linkage was established between the stolen property files and the vehicle registration files. As a result of this linkage, the entry of a vehicle or license plate into the State's stolen property file will automatically update the vehicle registration record. A subsequent license or registration check will immediately alert an inquiring officer that the vehicle is stolen.

In January, 1972, recognizing the importance of the System to law enforcement officers, the project team provided early State-wide implementation of the warrant and stolen property subsystems. This early implementation resulted almost immediately in positive hits on the stolen property and warrant files. The remaining criminal justice and highway safety subsystems were designed, programmed, pilot tested and documented on schedule and turned over to the Information Center in May, 1972.

As the next series of computer terminals are installed, virtually every criminal justice agency will have access directly or by radio to the Criminal Justice and Highway Safety Information Center.

A mobile patrolman may at any time request a terminal query from his dispatcher. If his dispatcher has a computer terminal, he will make that inquiry immediately. If he does not, he will establish base-to-base communications with his designated terminal site and request the information of it. Approximately 90% of all law enforcement officers in the State will be within radio communication distance of an established computer termi-

nal site. The transaction is routed to the computer center located in Little Rock.

The inquiry is processed and the response is returned to the inquiring terminal in a matter of seconds. The response includes both the requested data and a reference to other files where the subject has an active record. For example, a driver license check on a wanted person or parolee will respond to the terminal accordingly.

All terminal traffic to or from NCIC is routed through State Police terminals.

While any authorized law enforcement terminal may enter warrants or stolen property information into NCIC, the responsibility for these records rests with the State Police Communications Center. Copies of all such inquiries and responses are sent to the State Police Headquarters.

As development proceeded on the Highway Safety and Criminal Justice subsystems, a concurrent project was initiated to define and establish for the State Information Center a Statistical Division whose responsibilities had been broadly described in Act 286. An LEAA discretionary grant was received from Washington to support the prototype development of the State's Uniform Crime Reporting System and an Offender Based Transaction System, both of which were to become integral parts of the State's Information Center.

The statistics project resulted in the definition, pilot testing and acceptance of a series of Arkansas Uniform Crime Reporting forms, operating procedures, and implementation aids.

A detailed study was made of the data requirements for an offender based transaction system. An Arrest/Disposition form was designed to allow the tracing of an individual from arrest through court disposition. Because of a restriction in Arkansas' enabling legislation, the Information Center is prohibited from linking an arrest record to an individual's master name file until and unless that arrest results in a conviction. Although the Arrest/Disposition form does contain identifying information, the arrest data is not linked to the defendant's computer-based master name file record until a conviction has been returned.

Responsibility for linking the Arrest/Disposition record to an individual's master name file will rest with the State Police Criminal Identification Division.

All requisite identifiers will be matched and a positive identification will be made through the fingerprint which appears on the Arrest/Disposition form. The hard copy criminal history records

have always been maintained at the State Police Headquarters. Consequently, all offender-related records are the responsibility of that Department's Criminal Identification Division. A terminal has been installed at that site and criminal history is now being converted on-line. The Arrest/Disposition form will serve many purposes. It will feed the court cases pending module of the Information System. It will be the source of criminal history updating and it has been constructed to conform to the security and privacy constraints specified in Act 286. The offender tracking forms and procedures have now been pre-tested on a limited scale. We will soon begin implementation of these procedures in the State's most populous Judicial district.

In the spring of this year, using the organization and staffing plan prepared by the project team, the State selected Mr. David Eberdt as its first Administrator for the Criminal Justice and Highway Safety Information Center. Mr. Eberdt, his statistical and administrative staff and his field coordinators will operate the Center. Their responsibilities include training, supervision over terminal operations and completion and reporting of statistics.

This fall, The Information Center is proceeding at a fast pace with the State-wide implementation of the Criminal Justice Information System. The Center is both installing new terminals at selected sites and teaching old terminal users about the new facilities available to them. The Center has been staffed initially with five field coordinators whose duties include:

1. Training criminal justice personnel in the use of the terminals and the wide range of inquiries and Center services.
2. Another important field operation is the supervision of Uniform Crime Report data collection.
3. Monitoring system and terminal security through spot audits is another duty which is critical to the successful operation of the Information Center.
4. The staff will also assist agency administrators in interpreting and using the crime statistics produced by the Center's Statistical Division.

The Offender Based Transaction System has been designed and tested on a limited scale in Little Rock and will be fully implemented in the State's largest metropolitan area over the next six to nine months. By this time next year, the Uniform Crime Reporting System will be in operation State-wide and should cover about 90% of the State's reported indexed crime.

This entire system, while integrated in its design, has been modular in its construction. The system is available to any other authorized criminal justice agency which may be interested in transplanting it.

These are the primary factors contributing to the progress made at the Information Center.

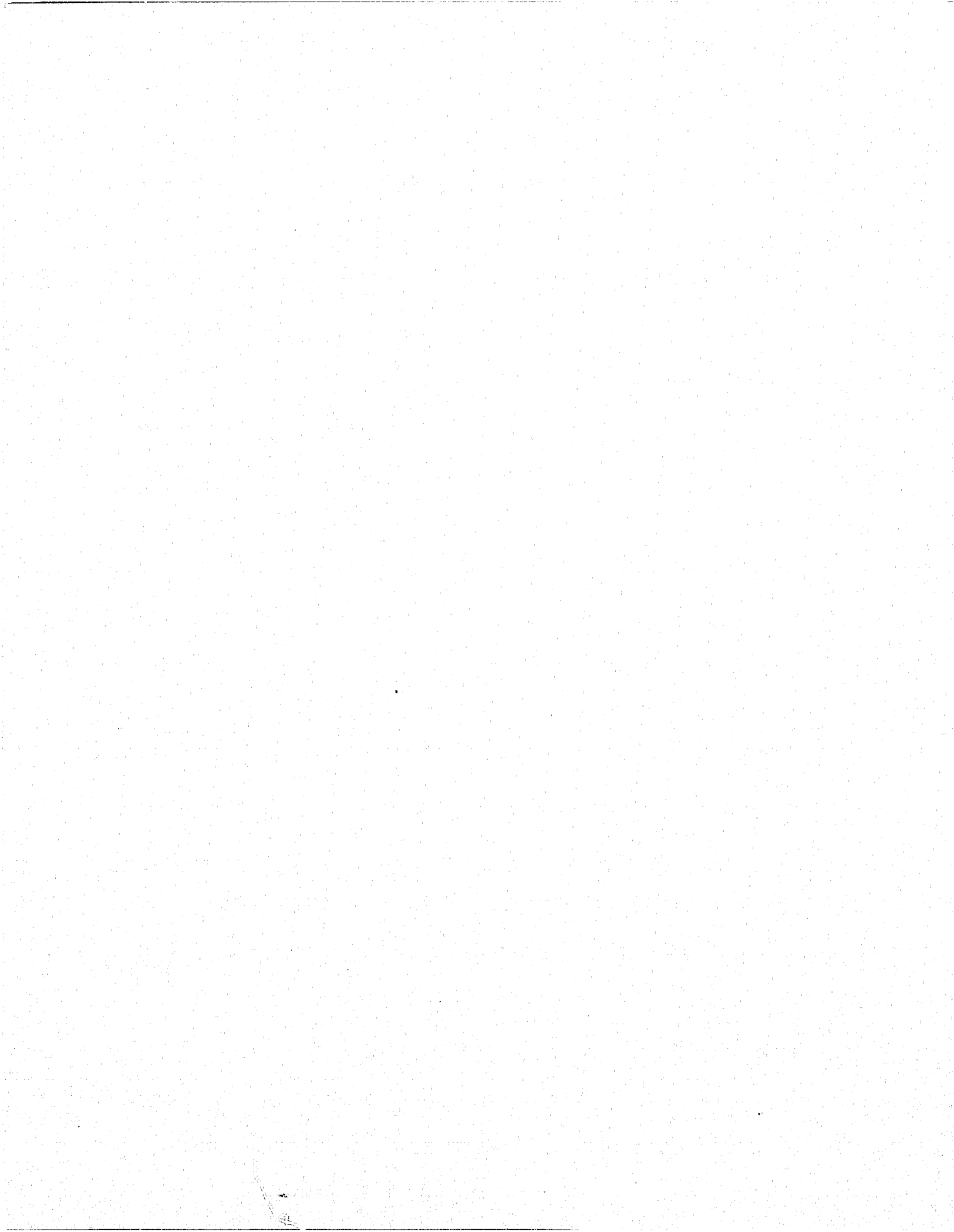
1. Before anything was begun, the State had prepared a well-conceived, comprehensive master plan embodying criminal justice, highway safety and statistical systems and it stayed with that plan.
2. The State has been blessed with all of the resources required to carry out the design, development and implementation of the systems:
  - a. The financial resources, thanks in large part to Federal funding from two sources.

- b. The people.
- c. The professional guidance and support.
- d. A well-staffed and well-equipped computer and communications facility.

All of these resources have been pressed to their limits.

3. Finally, and most important -- the State has had the constant, positive, enthusiastic support of user agency personnel, technical and operations personnel, and the Governor's office.

Arkansas' system is open for all to see.



**END**