ADMINISTRATIVE OFFICE OF THE COURTS

The mission of the North Carolina Judicial Branch of government is to protect and preserve the rights and liberties of all the people, as guaranteed by the constitutions and laws of the United States and North Carolina, by providing a fair, independent, and accessible forum for the just, timely, and economical resolution of their legal affairs. The Administrative Office of the Courts (AOC) is the administrative arm of the Judicial Branch, responsible for carrying out the provisions of Article IV of the North Carolina Constitution.

The Information Services Division (ISD) is responsible for the planning, design, development, maintenance, and operation of the automated systems within the AOC, as well as providing the computing resources to run these systems. The ISD reports to the Director of AOC, as do nine other divisions, some of which are quite small. ISD's mission is to help the court system take maximum advantage of technology for:

- Information processing

- Improved collections systems

- Facsimile equipment

- The computer-integrated courtroom

- Networking of Judicial Branch offices

- Remote access to court records

- Providing information to the public

AOC has a single mid-size IBM mainframe computer, Model 3090/300 running MVS ESA, supporting the development and production of its automated systems. There are fourteen automated systems maintained and operated by ISD. The major applications running at ISD support the following court functions:

- Trial court case tracking

- Appellate court case tracking

- Trial court financial systems

Because of the nature of the information maintained and used by the Courts, ISD interacts with a wide range of other State agencies, including:

- Motor Vehicle Division

■ Crime Control and Public Safety

■ Highway Patrol

Sharing of time sensitive data among these agencies is critical to their respective missions and to the citizens of the State.

One of ISD's key objectives is to automate as many of the Court Clerk's functions as is cost-effective. AOC has moved aggressively into the use of local area networks, and ISD is currently supporting the installation of LANs at a number of the larger County Courts.

The AOC has the second largest data processing organization with its own mainframe computer, second in size only to SIPS.

The major findings and recommendations concerning information technology and telecommunications within the Administrative Office of the Courts follow.

Finding 137 - ISD has made commendable efforts to address the State Auditor's recommendations, but a number of critical recommendations have not yet been fully addressed.

ISD provided a number of documents concerning the State Auditor's last report on its data center operations. These included:

■ Letter, dated February 19, 1992, from ISD to Office of the State Auditor, requesting that the pending audit be expanded to include RACF; and the results of the RACF audit dated March 5, 1992.

■ Letter, dated July 25, 1990, from ISD to the State Auditor, updating the status of its implementation of the recommendations made in the March 15, 1989, Auditor's Report.

■ Letter, dated April 11, 1989, from ISD to the State Auditor, responding to the March 15, 1989, Auditor's Report.

■ March 15, 1989, State Auditor's Report concerning EDP General Controls at ISD.

In summary, the findings and recommendations of the State Auditor and the status of ISD's implementation of those recommendations are:

■ Implement a Steering Committee

IMPLEMENTED

- Develop/update written policies and procedures

NOT IMPLEMENTED

- Security:

  Security objectives and responsibilities be clearly defined

  IMPLEMENTED

  Automated security package be installed

  PARTIALLY IMPLEMENTED: RACF is installed, but the audit of RACF indicates ISD still has not implemented all RACF features that should be used

  Passwords be changed periodically

  IMPLEMENTED

- Documentation of requests to change data bases

  IMPLEMENTED

- Formalize the system software change control process

  PARTIALLY IMPLEMENTED

- Formalize the application development process

  PARTIALLY IMPLEMENTED: Project planning is now done at a detail level, and an overall life cycle management methodology is defined. ISD still needs to complete the definition of the life cycle development methodology and its standards at a detail level.

- Formalize the program change control process

  PARTIALLY IMPLEMENTED: ISD is using IBM's library management facility for program change control, but acknowledges that it needs a more comprehensive library management system.

- Expedite the development of a comprehensive disaster recovery plan

  NOT IMPLEMENTED

■ Implement a closed shop policy

IMPLEMENTED

■ Correct physical security weaknesses

IMPLEMENTED

ISD is to be commended for its substantial progress towards the implementation of the State Auditor's recommendations. However, a number of the more critical issues are still outstanding, and the original report was issued in March 1989 - over three years ago.

Recommendation - ISD should immediately implement the remaining recommendations of the State Auditor.

All the outstanding issues are important and need immediate attention. The remainder of this report elaborates on those areas that warrant particular attention and emphasis.

Finding 138 - ISD does not have a current or complete set of standards.

ISD is in the middle of updating all of its standards, and it is also redefining its life cycle management approach. This is a comprehensive effort on the part of ISD, and a Standards Committee has been established for this purpose.

A binder called the Standards Manual represents the structure of the new standards document being developed by ISD. The content outline and current draft of the new manual contains the following sections:

■ **General** - addresses the following points:

. Life Cycle Phases, but no narrative discussing them

Procedures for Requesting Standards - a flow chart with no narratives

■ Format for all standards

■ Responsibilities for the Standards Committee - bullet point format

■ **Project Initiation Section** - contains an outline of the review criteria to be applied to a project request.

■ **Planning Phase Section,** dated November 15, 1991 - contains a very detailed outline and structure for what would appear to be a complete and comprehensive section concerning system planning.

- **Analysis Section** - EMPTY

- **Design Section** - EMPTY

- **Construction Section** - EMPTY

- **Acceptance Testing** - EMPTY

- **Training** - EMPTY

- **Implementation and Start-up** - EMPTY

- **Operation and Maintenance** - EMPTY

- **Data Modeling** - EMPTY

- **KnowledgeWare CASE Tools** - EMPTY

- **Files/DB2/DL-I** - EMPTY

- **Program Specifications** - EMPTY

- **Screens** - EMPTY

- **Reports** - EMPTY

- **COBOL** - ISD provided a draft COBOL II standards outline and draft COBOL II standards. The outline for the COBOL standards appears to be comprehensive and detailed; however, there is no overall structure. It would be difficult to find a specific standard or use the standards as a reference manual in their present form.

Recommendation - Complete the new standards manual.

The ISD standards outline and the effort to date appear to be comprehensive and will result in a set of useful standards if completed. This effort should be given a higher priority and additional resources made available to complete the standards in a timely manner. Also, the following standards should be included in the new Standards Manual:

- **Data Dictionary Standards**

- **Naming Standards**

- **JCL Standards**

Finding 139 - ISD has no information services policy or procedures manual.

ISD does not have a separate manual or collection of memos that address the policies and procedures used to manage and control its information resource management activities.

Recommendation - Initiate an effort on policies and procedures similar to the effort on standards.

ISD should develop a single manual or binder that contains all of the ISD policies and procedures that are necessary to plan, manage, and control the ISD operations at AOC. Policies and procedures that should be included are:

- Security

- Job requests

- System change requests

- Log-on

- Change management

- Problem management

Finding 140 - ISD's disaster recovery plan is not implementable.

ISD's current disaster recovery plan is dated December 1, 1988. The previous version of this plan was dated July 1, 1981. No disaster recovery plan is likely to remain effective for more than seven years without interim updates. The current plan has already gone three and a half years without an update.

The plan provides the following:

- Responsibilities for recovery team leaders

- Individuals and their telephone numbers

- Location of back-up system software, back-up application system software, documentation, and operating instructions, all stored at the Archives and History Center Building

- Check lists (not particularly detailed nor comprehensive)

    First recovery team meeting

Subsequent recovery team meetings
Damage assessment checklist

■ Staff contact list

■ System software and hardware configuration (out of date)

This plan does not appear to be operational and would be of little use in the event of a major disaster at the AOC data center. The material weaknesses of the plan are:

■ No hot site or cold site is identified for the IBM processor

■ No prioritization is provided of application systems to be recovered

■ No disaster scenario(s) is presented. This is significant because recovery actions will vary with the extent of the disaster and the time required to recover

■ No procedures or steps are defined for the identification and assessment of damage, and the recovery and operation of the data center after a disaster has occurred

■ No application system level recovery procedures exist

■ No disaster recovery test plan exists

■ No test of the plan has been conducted (no recovery site)

Recommendation - Immediately develop an operational disaster recovery plan.

ISD needs an operational disaster recovery plan for its data center. The plan should include the following, at a minimum:

■ Identification of a back-up hot site or cold site

■ Prioritization of application systems to be recovered and the time frames for recovery

■ Identification of the disaster scenario(s) addressed and not addressed by the plan

■ Specific procedures or steps required to recover from each of the disaster scenarios, including the identification and assessment of damage, and the recovery and operation of the data center after a disaster has occurred

■ Application system level recovery procedures

■ Disaster recovery plan test plans

4.71

■ Test results and corrective actions

ISD should meet with SIPS and enter into discussions concerning the expansion of the new SIPS disaster recovery hot site agreement with IBM to include AOC's data center.

Finding 141 - AOC's four-year plan for information technology does not provide the necessary level of detail.

The current Judicial Branch Four Year ADP Plan covers fiscal years 1991 to 1995. This document is more a statement of strategic direction than a plan of actions to be taken. As a systems plan, it lacks the following:

■ Specific project descriptions, including for each project:

　　Detailed project description
　　Project schedule and dependencies
　　Resource requirements
　　Contingency plans

■ Allocation of ISD resources

ISD has a very detailed and comprehensive tactical plan addressing the work breakdown of the on-going projects and the resources for each task.

Recommendation - Prepare a more detailed four-year plan for AOC systems.

AOC should prepare a more detailed and comprehensive four year plan that defines its intended projects and reflects how it expects to allocate its ISD resources over that time period. The following information should be included in the plan for each major initiative:

■ Individual responsible

■ Project description

■ Project's overall goals and objectives

■ Project start date

■ Project major milestone dates

■ Resource requirements

■ Interrelationships between projects

■ Contingency plans

Finding 142 - ISD does not have a formal capacity management function.

The Systems Support unit of the Technical Services group is primarily responsible for maintaining the operating and system support software; it also has the responsibility for performance analysis and capacity management. The unit currently does not have a fully operational performance analysis and capacity management function. Trends reports are not routinely produced.

Recommendation - Formalize and staff the performance analysis and capacity management function.

ISD should establish a comprehensive performance analysis and capacity management function to address all of the following items:

■ Management planning

■ Service level objectives

■ Natural forecast units (NFUs) and workload forecasting

■ Workload monitoring on a routine basis

■ Usage and trend analysis and reporting

■ Application tuning

■ System performance tuning

■ Modeling/simulation