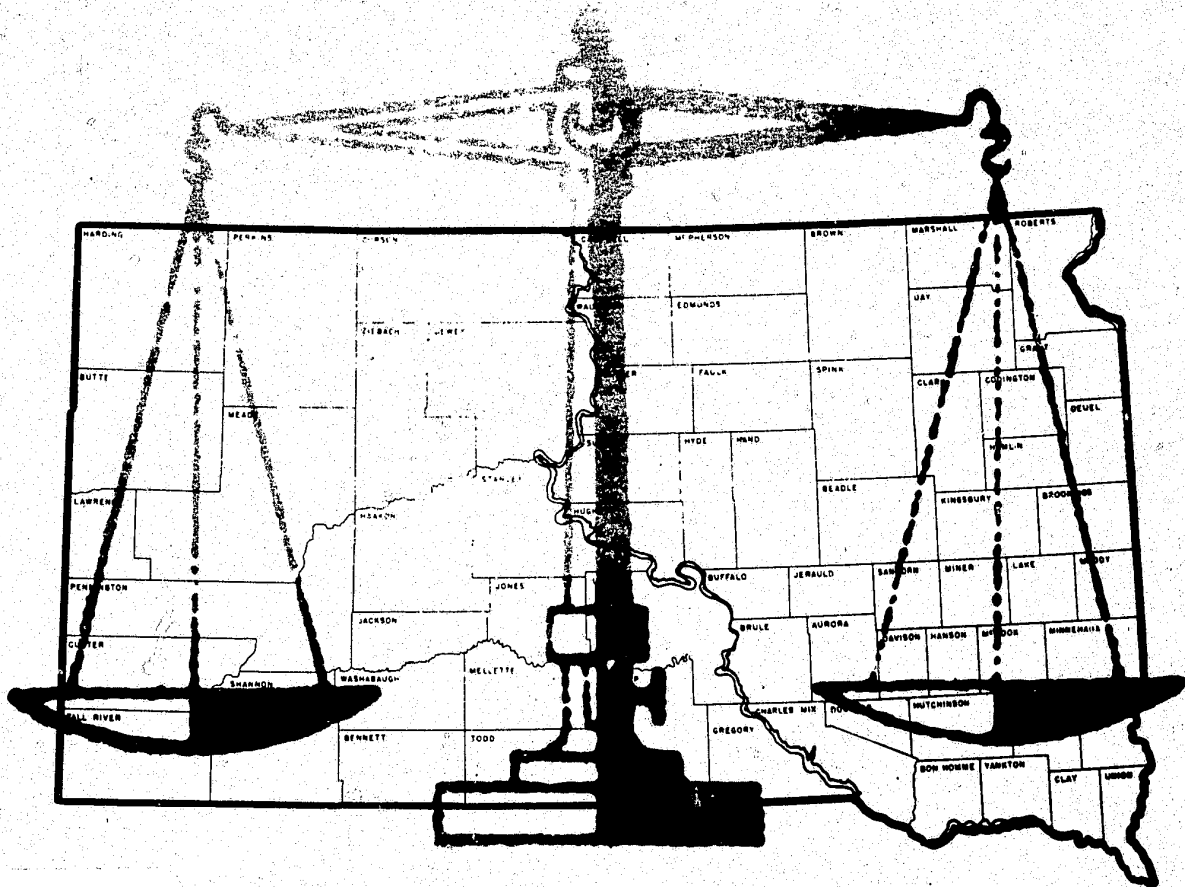


AN EVALUATION OF THE SOUTH DAKOTA TELETYPE SYSTEM



MAY, 1978

68867

**SOUTH DAKOTA DEPARTMENT OF PUBLIC SAFETY
Division Of Law Enforcement Assistance
200 West Pleasant Drive
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If it were not for the cooperation of the individuals listed above, this study of the South Dakota Law Enforcement Teletype would not be a reality.

NCJRS

JUN 30 1980

ACQUISITIONS

SOUTH DAKOTA TELETYPE STUDY

MAY 1978

DIVISION OF LAW ENFORCEMENT ASSISTANCE
SOUTH DAKOTA DEPARTMENT OF
PUBLIC SAFETY
PIERRE, SOUTH DAKOTA

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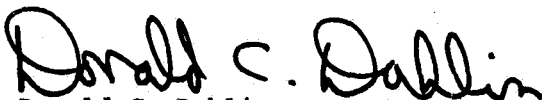
FORWARD

SOUTH DAKOTA TELETYPE STUDY

While of interest to several, this document should be of great interest to at least three groups of individuals in the state: Law Enforcement Officers; County Commissioners; and, State Legislators. It is of interest to these parties because it discusses current levels of satisfaction with the law enforcement teletype, future alternatives for the system, and possible changes in funding sources.

This document was never intended to be a technical study, nor does this document purport to have a monopoly on solutions to problems with the existing teletype network. Instead, the purpose of this study was to document the existing level of satisfaction with the network and to explore possible future alternatives; both operational and financial.

The report you are about to read has achieved its goals. The perceived value of the system has been documented, areas for improvement discussed, and alternative funding mechanisms explored. It is now up to the user agencies, the Division of State Radio Communications, the counties, and the State Legislature to utilize the contents of this publication. Only through additional communication and deliberations between those parties, will this report be of benefit to the ultimate beneficiaries of the law enforcement teletype system - the citizens of the State of South Dakota.



Donald C. Dahlin
Chairman
South Dakota Criminal Justice Commission

SOUTH DAKOTA TELETYPE STUDY

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INTRODUCTION

It is almost a foregone conclusion that state, county and municipal law enforcement agencies have been facing a severe budgetary crunch in the past couple of years. The outlook in the future does not appear to be any more encouraging. The natural tendency of elected officials to avoid tax increases, coupled with the rising costs of providing law enforcement services, has created a dilemma of sorts at the state and local levels. A prime example of this situation is the current issue of "assumption of costs" of the state teletype network.

Chapter 13 of Title I of the South Dakota Compiled Laws, authorizes and establishes the state radio communications system. Statutes contained in that chapter empower the Attorney General to "purchase the necessary apparatus and equipment to construct or establish a radio broadcasting station.....The Attorney General is charged with the operation and maintenance of said radio broadcasting station." Further statutes contained in this chapter speak to the purchase of necessary equipment and employment of personnel, as well as the authorization to accept and use federal funds for such uses. In 1975, the state legislature added to chapter 13 by passing seven statutes dealing with the statewide teletype system. SDCL 1-13-11 authorized the attorney general to establish a unified teletypewriter network to interconnect various law enforcement agencies in South Dakota by written communications. SDCL 1-13-12 directed the state to furnish the Division of Highway Patrol and the Office of Attorney General teleprinters and other necessary equipment.

SDCL 1-13-13 is probably the most controversial of the teletype statutes passed in 1975. That statute is entitled County Sheriffs to Receive Teleprinters, and states "each county within the state shall furnish to the sheriff of that county, a teleprinter and other necessary equipment of a type specified by the Attorney General."

As of May, 1978, the cost to each county for providing teleprinters to the sheriff was \$67.50 per month. On July 1, 1978, the monthly costs for the teleprinter will rise to \$90.00. Eventually, the monthly cost to state and local government per machine will be \$180.00. This is due to a phase-out of federal support from the State Criminal Justice Commission. The State Commission will not contribute to the maintenance of the system after FY 1980.

Purpose of this Study

Since 1969, the State Criminal Justice Commission has awarded \$683,912.71 of federal LEAA money to State Radio Communications for the start-up and operation of the statewide teletype network. A breakdown of those awards is as follows:

1969	\$ 3,096.00	(NCIC Terminal)*
1970	\$ 3,800.00	(NCIC Terminal)*
1971	\$ 3,024.00	(NCIC Terminal)*
	\$ 18,642.15	(Teletype Study)
1972	\$ 1,008.00	(Digital Message Switcher)
	\$ 18,553.50	(Set up Pierre Area)
	\$ 19,987.33	(Set up Parker Area)
	\$ 17,879.46	(Set up Rest of State)**

1973	\$ 30,176.00	(Additional set-up money)
	\$ 9,375.00	(High speed line printer for the message switcher)
1974***	\$115,230.27	(State teletype operations)
	\$ 6,300.00	(Improve message switcher)
1975	\$ 99,749.00	(State teletype operations)
	\$ 1,025.00	(State teletype operations)
1976	\$ 5,100.00	(Microwave frequency counter)
1977	<u>\$100,000.00</u>	(State teletype operations)
 \$683,912.71		

* This was the rental cost for a two way terminal in the D.C.I. for inquires into the NCIC computer in Washington, D.C.

** Kimball, Webster, Rapid City, Huron Districts

*** 1974 was the first year of implementation for the entire statewide teletype.

The State Crime Commission has further committed an additional \$146,182.00 for continued operation of the teletype system. This money is to be awarded to State Radio Communications on a decreasing basis starting with \$71,182.00 in FY 78, \$50,000 in FY 79, and \$25,000.00 in FY 80. This will bring the total amount of the money awarded to state radio communications by the State Crime Commission to \$830,094.71.

Because of this vast expenditure of dollars for operation of the teletype, and because of the relatively large yearly cost of operation of the system, there are four distinct groups who have an interest in both the past operation and future directions that the state teletype system may take. Those groups are: 1) the State Criminal Justice Commission; 2) the State Legislature; 3) the Division of State Radio Communications; and, 4) the user agencies and individual law enforcement officers in the state.

The State Criminal Justice Commission is interested in what impact the expenditure of their funding dollars has had on the betterment of law enforcement service delivery in the state. The state legislature is interested whether or not the law enforcement teletype system is worth keeping and secondly, who should pay for its operation and maintenance. The Division of State Radio Communications is motivated by a desire to improve the teletype system; and therefore, state radio needs to know how satisfied the users of the system are, and what improvements can be made to better the system. The fourth interest group, the user agencies and individual law enforcement officers, will be the primary beneficiaries of this study. The other three groups are funding sources and service providers, but their concerns are secondary to the daily users of the system.

Utility of this Study

This study does have a certain number of limitations in its usefulness. This study was not intended for and cannot be used as a technical feasibility study for reconfiguration of the existing teletype network. This report also is not a study of the technical feasibility of a two-way teletype system in the state.

This study will, however, point out the perceived value of the current state teletype system of those who are the everyday users of its information. This study will point out areas where there is an interest in instituting a two-way teletype system. This study will compare the South Dakota teletype with systems in surrounding states with similar geographic characteristics and law enforcement systems. Finally, this study will offer several options for the future

assumption of the teletype system's cost.

Methods of this Study

In order to gather information necessary for this evaluation of the state teletype system, several data collection methods were used. First of all, interviews were held with relevant state agency personnel. Those personnel included:

Jim Melstad	Administrative Assistant, State Radio
Harry Martins	System Engineer, State Radio
Marc Tobias	Director, State Radio
Don Licht	Director, Division of Criminal Investigation
Colonel Dennis Eismach	Superintendent, South Dakota Highway Patrol
Major Eldon Russell	South Dakota Highway Patrol
Bob Hardwick	State Radio, Pierre
John Waters	State Radio, Rapid City
Vern Stephens	State Radio, Kimball
Bill Ford	State Radio, Huron
Harold Hirtes	State Radio, Webster
Norm Jensen	State Radio, Parker

Additionally, three types of surveys were developed by the Division of Law Enforcement Assistance and sent to: 1) all agencies who currently maintain a teletype; 2) all agencies who formally were on the teletype network; and, 3) a representative sample of state and local law enforcement officers from across South Dakota.

At the time of this study, there were 84 teleprinters located in state and local law enforcement agencies throughout the state. These were located in 64 counties, 11 municipalities, 5 Indian Reservations and 4 highway patrol offices. Surveys were completed and returned by 58 of the 64 counties, 4 of the 5 tribes and 10 of the 11 municipalities. All 3 of the highway patrol district offices responded to the survey; the headquarters office of the Highway Patrol was not surveyed, but rather a personal interview was held with Colonel Eismach and Major Russell of the Patrol.

As of April 12, 1978, there were 973 state and local law enforcement officers in South Dakota. This figure included municipal police, sheriffs and deputy sheriffs, and highway patrolman and DCI agents. 120 of those officers were sent survey forms asking for both their perceptions of the value of the teletype, and areas where improvements could be made. 42 of 64 municipal police responded, 26 out of 28 deputy sheriffs responded, and 27 out of the 28 highway patrolman surveyed responded for a grand total of 95 out of 120 or 79.1%. The survey forms and the aggregate responses to the surveys are listed as appendices to this report.

The surveys were mailed out March 29, 1978 under a cover letter from the Secretary of the Department of Public Safety and Chairman of the State Criminal Justice Commission, Dr. Donald C. Dahlin. His letter explained the purpose of the surveys and the importance of each individual officer's and agency's response. Those surveyed were asked to respond by April 14, 1978. To encourage the completion of the surveys, the surveys were mailed with a return addressed stamped envelope enclosed.

The Division of Criminal Investigation and State Radio Communications cooperated fully with the survey effort. A special notice was printed in the DCI bulletin of March 31, 1978 which goes to every law enforcement agency in South Dakota. That notice asked those who had received survey forms to complete and return them by April 14, 1978. Approximately

two weeks later, a general message was sent out over the teletype network encouraging agencies who at that time had not yet responded to the surveys, to please do so. Finally, district State Radio dispatchers also encouraged those sheriffs who had not responded to do so, and district criminal justice planners did the same. It is our feeling that this concerted effort on the part of all those involved undoubtedly was the reason why 90.6% of the user agency survey forms and 79.1% of the individual officer forms were returned.

Finally, letters were sent to all other states in NLETS region F. This region is comprised of North Dakota, Minnesota, Iowa, Nebraska, Wyoming, and Montana. Three of those states responded through the mail and the other three were contacted by telephone. Those telephone conversations ranged in length of time from 5 minutes to 45 minutes. Information requested from these states included the configuration of their systems, cost, and billing procedures of those states.

What is a teletype system

The term teletype is an abbreviation for teletypewriter. A teletypewriter is a machine that can (depending on the model) either transmit or receive (or both) typewritten messages to or from other teletype machines on its circuit. This circuit is almost always rented from the Bell Telephone System and may be relayed by cable, or microwave, or by both.

Teletype machines offer fast, accurate communications between parties and provide written "hard copy" to the parties involved. Law Enforcement is but one sector that utilizes teletype machines for communication. Others include news organizations (AP, UPI), large business corporations with branch offices, government, and the military.

In the case of Law Enforcement agencies, the teletype is used both for communication between agencies and for the retrieval of information stored in computers. Information that once took days to request and receive is now available in minutes.

The theory behind the law enforcement teletype system

The vast majority of calls for service received by law enforcement are non-criminal in nature. Some estimates range as high as 90%. The use of the teletype system plays an important role in both areas.

Law enforcement traditionally has had four roles: Deterrence of crime by their mere presence; detection of crimes committed, but not yet reported to that officer; apprehension of criminal offenders; and, prevention of crime thru target hardening activities.

To detect that a crime has been committed, but not committed in the presence of the officer, requires some sort of collateral evidence. In the case of theft, the property must be accurately indentified and reported stolen to the police, and the individual law enforcement officer must be aware of it. If it is a local theft, the officer probably received a radio report of the crime. If it is a theft from somewhere outside his/her jurisdiction, but still in the state, then the chances are fair that the officer is aware of the crime. But, if the crime is committed in another state, the local law enforcement officer has no chance of being knowledgeable of the crime. In this day and age of easy mobility, that is definitely an advantage to the offender.

To counter that advantage, law enforcement needs a method to receive information on suspected stolen property quickly. If the original police report is computerized, that information can be accessed within minutes via a teletype inquiry. The stimulus for requesting a status check may be routine such as during a traffic arrest, or as a result of suspicious behavior by a suspect.

The use of the law enforcement teletype network is also valuable in the apprehension of known offenders in a similar manner. A check of computerized "wants" may be initiated by entering a name into the computer. Normally a response is received back by the requesting agency in less than three minutes. This is extremely helpful in checking out suspects when arrest or prolonged detention is not feasible or legal.

Teletype communication with police computers can also play an important role in guaranteeing officer safety. The results of a motor vehicle check or a wanted check dictate with how much caution an officer should approach a subject or vehicle. Certainly this information would have resulted in fewer police officer deaths in the past if it was available.

From an administrative point of view, it is important that valuable information be transmitted in a timely, accurate, and often sometimes confidential manner. Federal regulations mandate that criminal histories must be transmitted in a secure manner. The teletype is the only viable alternative to the U.S. Mail. Criminal histories may be transmitted via teletype in a matter of minutes, while the mail consumes several days.

Dissemination of police intelligence between agencies is another area where confidentiality is important. Because of the proliferation of radio scanners that allows the general population to monitor traffic on police frequencies, that means of communication is not used for sensitive information.

An additional advantage to law enforcement agencies in an administrative sense is that the "hard copy" provided by the teletype eliminates the possibility of errors in trying to hand copy radio messages. This is extremely important in disseminating all points bulletins (APB's).

If it were not for the current teletype system in the state of South Dakota, one of three means of communication would have to be used: mail, telephone; or radio. None of them are acceptable for a combination of reasons, most notably speed, accuracy, and cost. The mail is too slow, and using the telephone too inaccurate and costly. There is too much volume to broadcast over police radio frequencies so the alternatives are to decrease the volume of messages or to utilize the teletype. Items that are of interest to all local law enforcement officers may sometimes be broadcast over the state police radio with justification; however, messages that apply to only one officer or agency and are not urgent are not justified. Those messages only tie up the entire radio network while being broadcast and defeat the purpose of State Radio Communications.

Any message of an administrative nature is best communicated by means other than over the air. Road and weather reports are prime examples of these messages. There is some feeling that these types of messages are barely related to law enforcement, but it must be remembered that the public relies on law enforcement for this type of information, and the police are a public service agency.

Finally, the law enforcement agencies of the state and most notably the Division of Criminal Investigation, (DCI), would be limited in their effectiveness were it not for the teletype for quick, confidential, accurate dissemination of police intelligence and wants on a statewide basis. Other methods of dissemination are not acceptable.

National Crime Data Systems

In order to understand the importance and utility of the South Dakota Teletype Network, it is important to briefly look at two national systems that interface with the South Dakota System. Those systems are the National Law Enforcement Telecommunications Systems (NLETS) and the National Crime Information Center (NCIC). A brief description of each and an explanation of how they relate to South Dakota is contained below.

The NLETS is an information system network comprised of 49 states. A computerized message switcher located in Phoenix, Arizona, allows any law enforcement agency in the country to directly access into the computerized files of any individual state. As an example, if a highway patrolman pulled over a vehicle licensed in the state of Texas for a traffic violation, and the patrolman wished to verify the registration of the automobile or check to see if the driver had a valid driver's license, he would radio State Radio for a registration check or a driver's license check. State Radio would enter the appropriate information into the teletype. The message would be routed to Phoenix, Arizona, where the message switcher of the National LETS would transfer the message directly to the Department of Public Safety computer in Austin, Texas. The computer in Austin would sort through their files, find the appropriate information and relay it back to state radio via the NLETS message switcher. State radio would then verbally communicate the results of that record search to the patrolman. This entire operation should take no longer than 2 to 3 minutes.

All but 3 of the 49 member states of National LETS have a computerized interface with the system. Of the 46 states with automated capabilities, 9 cannot provide computerized access to their state's motor vehicle files and 12 only manually support the driver's license files. All points bulletins of interest to police agencies are also carried nationwide on this network. This system has the capability to direct any message to any individual agency, state, combination of states or nationwide.

The NCIC is a computer center operated by the Federal Bureau of Investigation in Washington, D.C. It is a nationwide repository for stolen vehicles, stolen securities, stolen property, stolen firearms, and wanted felons. Each time that there is a reported crime where identifiable property or suspects are involved, and the jurisdiction that received the reported crime is willing to extradite, then it is entered into the NCIC computer. Access to this stored information is available to individual law enforcement officers or agencies in South Dakota in a matter of minutes.

An example of how the NCIC is used by law enforcement agencies may be shown as follows: A highway patrolman pulls over a non-local vehicle for a traffic violation. At that time, to insure his own personal safety and also to detect whether or not either the vehicle or the driver is wanted in connection with a felony, the trooper may wish to run an NCIC check. To do so, he would radio State Radio and request that either a name or a vehicle be entered into the NCIC computer for a wanted check. The State Radio dispatcher would code the

message and send it through the state message switcher to the NCIC computer in Washington, D.C. The computerized search would take only a matter of seconds and the response would be relayed directly back to State Radio. If the vehicle or suspect was indeed wanted, then the dispatcher would inform the trooper that the NCIC check was a "hit". This would clue the officer to use extreme caution in approaching the suspect or suspect vehicle and also allow for the officer to request backup manpower. On a nationwide average, it is estimated that two to three percent of all NCIC inquiries result in a "hit" or positive identification of a wanted person or piece of property.

A prime example of the value of NCIC and NLETS can be further shown in the following article taken from the Pierre Daily Capital Journal of May 4, 1978. The information that led to these arrests was the result of an inquiry via teletype to a computer.

Officer Bill Jensen Nabs Fed. Parole Violator

A routine check of a license plate number by a Fort Pierre policeman early this morning resulted in 6 arrests, and apprehension of a federal parole violator.

Fort Pierre Police Chief Mike Maskovich reported today that officer Bill Jensen

arrested John F. Wallace, 54, and discovered he was wanted for violation of federal parole from McNeal Island Prison

in Tacoma, Washington. He had been missing since January 31, 1977.

Also taken into custody were driver Gordon E. Bluearm, 22, of Dupree; Carl S. Dupree, 24, of Cherry Creek; Edward D. Crow, 29, of Cherry Creek, Monica M.

Crow, 33, of Cherry Creek, and Evette E. Ketcekgig, 30, of Cherry Creek.

Bluearm and car owner Carl Dupree

were charged with violation of vehicle registration and open container. The others were charged with open container.

Chief Maskovich said officer Jensen had run a check on the license plate about 1:30 a.m. today, and discovered it belonged to another vehicle. He summoned Pierre police assistance, and, when the car and occupants left, they were apprehended at the west end of the Missouri river bridge.

According to the March, 1978, National Crime Information Center Newsletter, there were 6,297,491 active records in NCIC, with the breakdown showing 139,066 wanted persons; 17,983 missing persons; 882,253 stolen and felony vehicles and stolen vehicle parts; 1,233,727 stolen and recovered guns; other stolen property consisting of 801,631 articles; 14,077 boats; 296,484 license plates; and 1,746,160 securities; and 1,166,110 criminal histories. In February 1978, NCIC network transactions totaled 7,245,728, averaging 258,776 daily.

Operating performance figures for February 1978 revealed that of the 672 hours in the month, the NCIC host computer was operational 652.6 hours (97.1%). This figure is broken down to show 636.3 hours (94.7%) unrestricted operational time and 16.3 hours (2.4%) restricted operational time, i.e., NCIC on the air but accepting only certain types of messages because of concurrent file maintenance. There were 3.3 hours (0.5%) of scheduled downtime. Unscheduled downtime totaled 16.1 hours (2.4%).

In summation, the National Crime Data Information Systems are the major reason that state teletype networks exist. This is especially true in South Dakota because the one-way nature of our system does not allow for the exchange of information between agencies via the teletype.

History - South Dakota's Statewide Teletype System

Prior to the advent of the teletype system, all messages were relayed by radio. The State Radio System was comprised of six dispatch points: Parker, Kimball, Huron, Webster, Pierre and Rapid City. The network was a relay system by which messages were transmitted point to point. A problem developed with this system in that messages would change in content when relayed through the various state points. For example, by the time Parkers message reached Rapid City it had been copied four times which allowed for a large margin of error.

In July of 1967, there was developed a teletype system for state use only. It too encompassed the six state dispatch points of Parker, Kimball, Huron, Webster, Pierre and Rapid City. It was created primarily for two reasons: (1) to free-up dispatcher and air time; and, (2) to provide locals with hard copies of messages for accuracy. Later privacy and security rules and regulations became an additional reason for the necessity of teletype.

In May of 1966, the National Law Enforcement Telecommunications System, NLETS, became part of South Dakota's State System. Its terminal was placed in the Division of Criminal Investigation under the direction of State Radio. In August of 1968, the National Crime Information Center (NCIC) also joined the state teletype system. The addition of NLETS and NCIC caused an increase in the volume of messages coming across the teletype. The then manual system could not handle the increased volume and soon a bottleneck developed in Pierre. The situation necessitated the acquisition of a message switcher to computerize the system. In 1972, the State Crime Commission approved funds of \$108,000 to purchase a digital message switcher.

From this time on there began a gradual building process. A pilot teletype system was started in Pierre in 1972 to free-up dispatcher and air time and to produce hard copies to the locals. Soon Sioux Falls and then Rapid City became part of the system. That same year the State Criminal Justice Commission and the South Dakota State Legislature decided to go statewide with the teletype system. By 1974 the statewide teletype system was in full operation and bottlenecks began to develop in the fields. The problem was soon alleviated with the placement of the regions on the message switcher.

There were two main reasons why South Dakota implemented a one-way teletype system. One, the cost of two-way was prohibitive; and two, the majority of South Dakota's law enforcement agencies are not sufficiently staffed to adequately man a terminal with transmittal capabilities. The initial cost to implement the statewide system only amounted to \$86,596.29. However, improvements were needed to the message switcher due to the increase in traffic on the system. These improvements included \$9,375.00 for a high speed line printer for the message switcher and \$6,300.00 for placing the regional users on the message switcher. State Radio estimates that a two-way teletype system would have cost the state at least \$200,000 to establish. Line message costs would be double, machine rental would be higher and there is the probability that additional circuits would have had to be added to take on the increase volume of messages. Not included in the \$200,000 estimate is the cost involved in training the users on transmitting procedures and codes, creating an user manual for teletype operators,

hiring personnel to man the two-way machines and employing others to provide the needed training. When the statewide teletype system was first implemented it was comprised of 94 machines. Terminals were located at the following sites:

Highway Patrol:

Aberdeen; Sioux Falls; Rapid City; Mitchell; Brookings; Pierre (2)

Tribal:

Sisseton; Cheyenne River Sioux Tribe; Pine Ridge; Ft. Thompson; Rosebud; Lower Brule

Police Departments:

Aberdeen; Rapid City; Spearfish; Edgemont; Lead; Mitchell; Vermillion; Brookings; Pierre; Lemmon; Redfield; Wall; Yankton; Deadwood; Huron; Mission; Sioux Falls

Sheriff Offices:

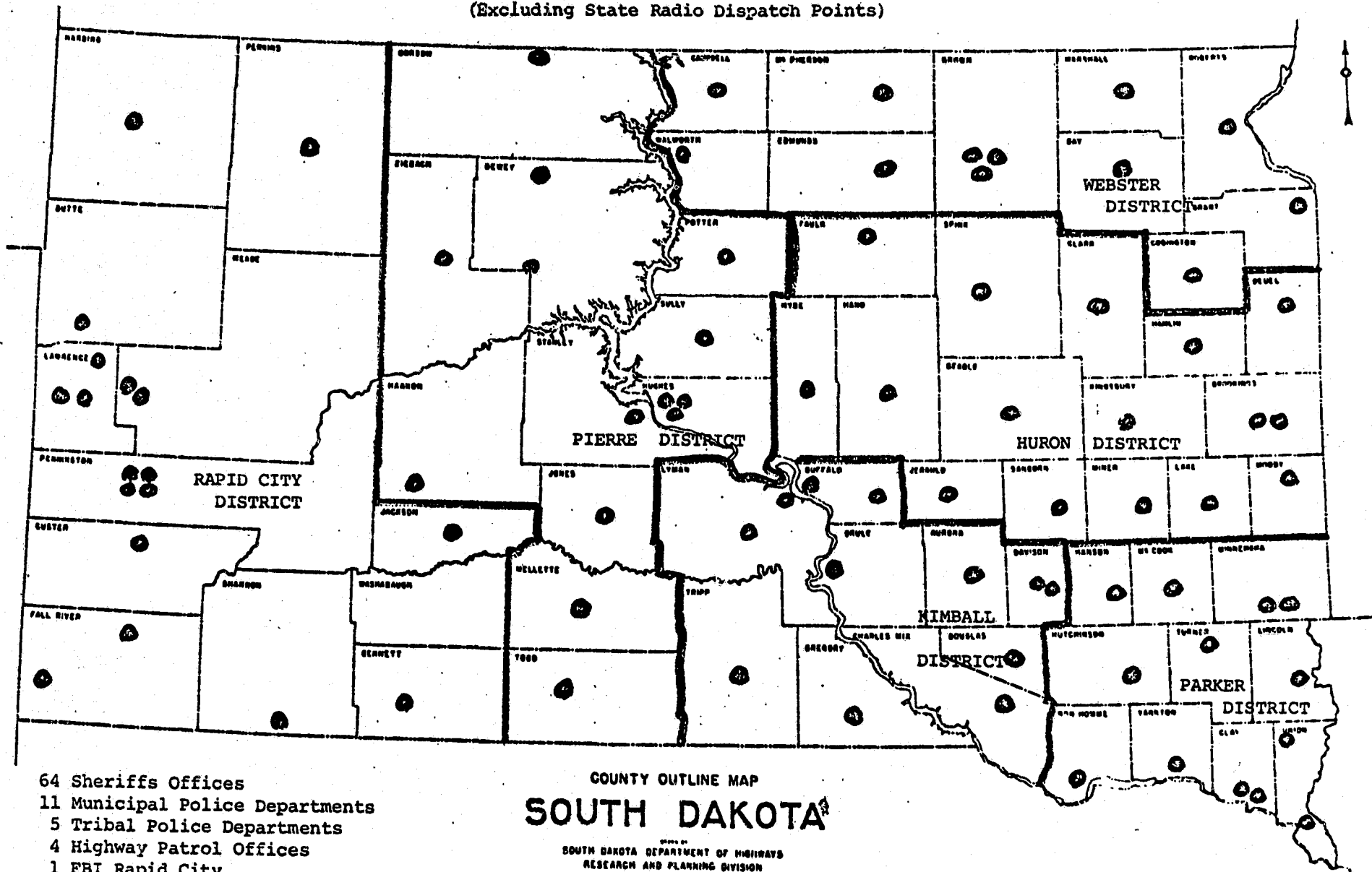
Onida; White River; Selby; Mobridge; Martin; Pierre; Dupree; Rapid City; Milbank; Buffalo; Custer; Woonsocket; Webster; Sturgis; Faulkton; Gettysburg; Kennebec; Clear Lake; Timber Lake; Chamberlain; Hayti; McIntosh; Lake Andes; Huron; Ipswich; Salem; Brookings; Sisseton; Canton; Howard; Mand City; Yankton; Miller; Bison; Elk Point; Watertown; Aberdeen; Winner; Madison; Britton; Plankinton; Clark; Leola; Parker; Gann Valley; Ft. Pierre; Olivet; Flandreau; Kadoka; Vermillion; DeSmet; Hot Springs; Burke; Wessington Springs; Murdo; Mitchell; Redfield; Phillip; Alexandria; Highmore; Deadwood; Tyndall; Bell Fourche; Armour.

Currently there are at least 94 users of the teletype system. There are, however, only 84 machines in operation. Eight agencies have combined to use only four machines. The sheriff's office in Selby uses the teletype located in Mobridge's police department. Sheriff and police are also sharing terminals in Yankton, Huron, Redfield, Belle Fourche, Winner, Hot Springs, Phillip, Watertown and Madison. Of the 94 original participants, five have since dropped out of the system. They include Lemmon Police Department, Tribal Sisseton, Wall Police Department, Deadwood Police Department and Mission's Police Department. Also bringing the number of active machines down was the closing of three district highway patrol offices. The locations of the former district offices were Brookings, Mitchell and Pierre. Since the original configuration of 94 users, there also has occurred the addition of the Beresford and Sturgis police departments.

The types of messages that move across the teletype include wanted and missing persons, stolen and felony vehicles, stolen firearms, stolen securities, stolen property, state cases, federal APB's, criminal histories, driver's license information, motor vehicle registrations, administrative messages, road reports, warrants, criminal suspects, and weather bulletins. Central Data Processing through the Department of Public Safety provides South Dakota driver's license and motor vehicle registration information. NCIC contains active records on wanted persons, missing persons, stolen securities, stolen firearms, stolen and felony vehicles, stolen property and criminal histories. NLETS through its computerized message switcher provides direct access to state, local and federal agency files. Data that can be obtained through NLETS includes driver's license information, motor vehicle registration, APB's, police administrative messages, road and weather information and other traffic of interest to police agencies.

PRESENT LOCATION OF TELEPRINTERS

(Excluding State Radio Dispatch Points)



The current South Dakota Teletype System is comprised of:

- CDP computer which stores information on motor vehicle registration and driver's license status.
- A two-way terminal in the Department of Public Safety for use in relaying driving license histories (manually retrieved).
- Two-way terminals in all six state radio district dispatch points plus the FBI Rapid City and Sioux Falls Police Department.
- A message switcher (computer) located in Pierre.
- 83 receiver-only terminals located in 63 county sheriff's offices, 4 highway patrol offices, 5 tribal police departments and 11 municipal police departments.

Messages originate in the field but can only be entered on one of the two-way terminals. The message switcher in Pierre routes the message over telephone circuits rented from Northwestern Bell to the appropriate destination. If the message triggers a response, that response is automatically routed to the appropriate agency and a hard copy typed on that terminal.

There are two major costs associated with the teletype: line mileage; and machine rental. Line mileage tariffs are regulated by the South Dakota Public Utilities Commission and are currently set at \$2 per month per mile. There are approximately 2,000 line miles of telephone circuits currently rented for a total of \$48,000 per year. Machine rental is \$112 per month for a yearly total of over \$120,000. Additional expense is for computer time, maintenance, and personnel; bringing the total close to \$250,000 per year.

The current monthly bill charged to each local agency housing a teletype machine is \$67.50 or \$688.50 yearly. This figure varies since it is based on pure average. The total cost of the system is divided by the number of teletype machines to arrive at the individual machine cost. This billing is for line mileage and machine rental and is prorated by the state legislature at 50% federal funds, 12.5% state funds and 37.5% local funds. When other state contributions are figured in, the ratio for the total teletype system currently is approximately 50% federal, 25% state, and 25% local.

NLETS "REGION F" SYSTEMS

Minnesota, North Dakota, South Dakota, Iowa, Nebraska, Wyoming and Montana are members of NLETS Region F and are somewhat similar in terms of population density, crime rate, economic characteristics and geography. The administrative heads of each state's teletype network were contacted by telephone or letter and asked to describe their state's system. A brief synopsis of their comments is displayed on the table on the following page.

The one common denominator among the other states is the fact that all of their terminals have two-way capability - that is, they have the capability to transmit as well as receive. The teletype machines in South Dakota are all one-way except for those at the state radio dispatch points, the Sioux Falls Police Department, and the FBI office in Rapid City. This means that state radio initiates all entries into NCIC or the NLETS at the request of the officers in the field. It also means that law enforcement agencies cannot communicate with each other over the teletype like they do in other states.

	NEBRASKA	IOWA	NORTH DAKOTA	MINNESOTA	WYOMING	MONTANA
Distribution of cost formula	Highway Patrol provides basic backbone.. all other terminals pay own line mileage & terminal rental..	Currently state 75% local 25% ...bill in to change ratio to 50/50	Cities-\$127/mo exclusive of lines Counties-based on pop. range \$30-\$160/mo	State pays entire costs- control bidding advantage	State pays line mileage & 50%	State 75% Local 25% local classified by population tax valuation
Total yearly cost and number of machines directly to vendor on system	unknown.....locals pay their own costs	\$900,000 per year machines does not include field staff expense 111 model-37	\$177,000 yearly.... 82 machines 8 data speed 40/3 4 ASR 35 70 ASR 33	\$800,000 year, 250 terminals in agencies 70 two way mobiles, 110 one way mobiles	37 terminals model 40CRT \$211,000 yearly budget	43 low speed terminals & 16 high speed IBM terminals..... CRT approximately \$200,000 per year
Legislative Mandate ?	No..... voluntary user must sign a contract with the Patrol	20% counties not on system, no counties with less than 14,000 population	Yes, for counties	No...state determines who gets on the network & pays all costs	No... all but one county voluntarily participate	No....33 of 56 counties are on network
Type and cost of training program,if any	2½ - 3 days of procedure instruction to agency personnel (also voluntary schools of instruction	Five Criminal Justice Spec. provide 8-12 hrs. of regionalized trng. Iowa Law Enforcement Academy also has a 40 hrs supervisory program	Initially 28 classes 30 day period produced a manual currently makings of small scale program	3 day school, 16 times a year (12 times in 9 mo)	Just started last December..... approximately one FTE involved	5-2½ day training session each spring
Volume of messages	Two way administrative message are a major usage	Average 1554 initiated & 4300 received per month	Volume initially under estimates adequate for 85% of users	Tremendous..... Administrative messages a major share	Administrative messages and criminal histories a major use	Administrative messages a high % of user initiated messages
Level of satisfaction	Main problem is with education & the on-going trng. needs	Computer down time a problem	High	High	Well accepted.... some delays from NCIC	High
Future directions	To enhance system with 1200 wpm model 40 terminals	Changing equipment from model 37 teletype				
Perceived benefits in 2-way teletype	Take a load off of the State Radio System	Looking into micro-wave transmission	Direct access to any agency or computerized data in the nation			Saving in long distance phone calls

Another interesting fact is that North Dakota, with approximately the same number of users, and Montana with slightly fewer, expend about the same amount of money each year as does South Dakota. This is so even though their machines are two-way and South Dakota's network is only one-way.

A final interesting comparison is how the costs are distributed to system users. In Minnesota, the state pays the entire cost of the system, while in Nebraska, local agencies pay the entire terminal and line mileage costs. The other Region F states all contribute at least 50% of the system's cost. In South Dakota, the state only pays for 12.5% of the total cost with locals paying 37.5% and the federal government (LEAA) 50%.

Individual Officer Survey

This analysis is based on a survey to which 95 individual officers responded. The respondents included 27 highway patrolmen, 26 deputy sheriffs and 42 policemen. Four questions were first asked to which a numeric value was to be selected. A scale of 1 to 7 was used with 4 representing the middle value. Below are the specific questions asked and their component parts. A rating of 5, 6 or 7 has been determined as a high or favorable response. Percentages shown reflect those officers who responded with a rating of 5 or above.

Questions:

1. When you pull a vehicle over for a traffic violation, about how often do you call state radio and:
 - . run an NCIC check on a local vehicle
 - . run an NCIC check on a non-local vehicle
 - . run an NCIC check on the driver (non-local)
 - . run a driver's license check (non-local)
 - . run a motor vehicle registration check (non-local)

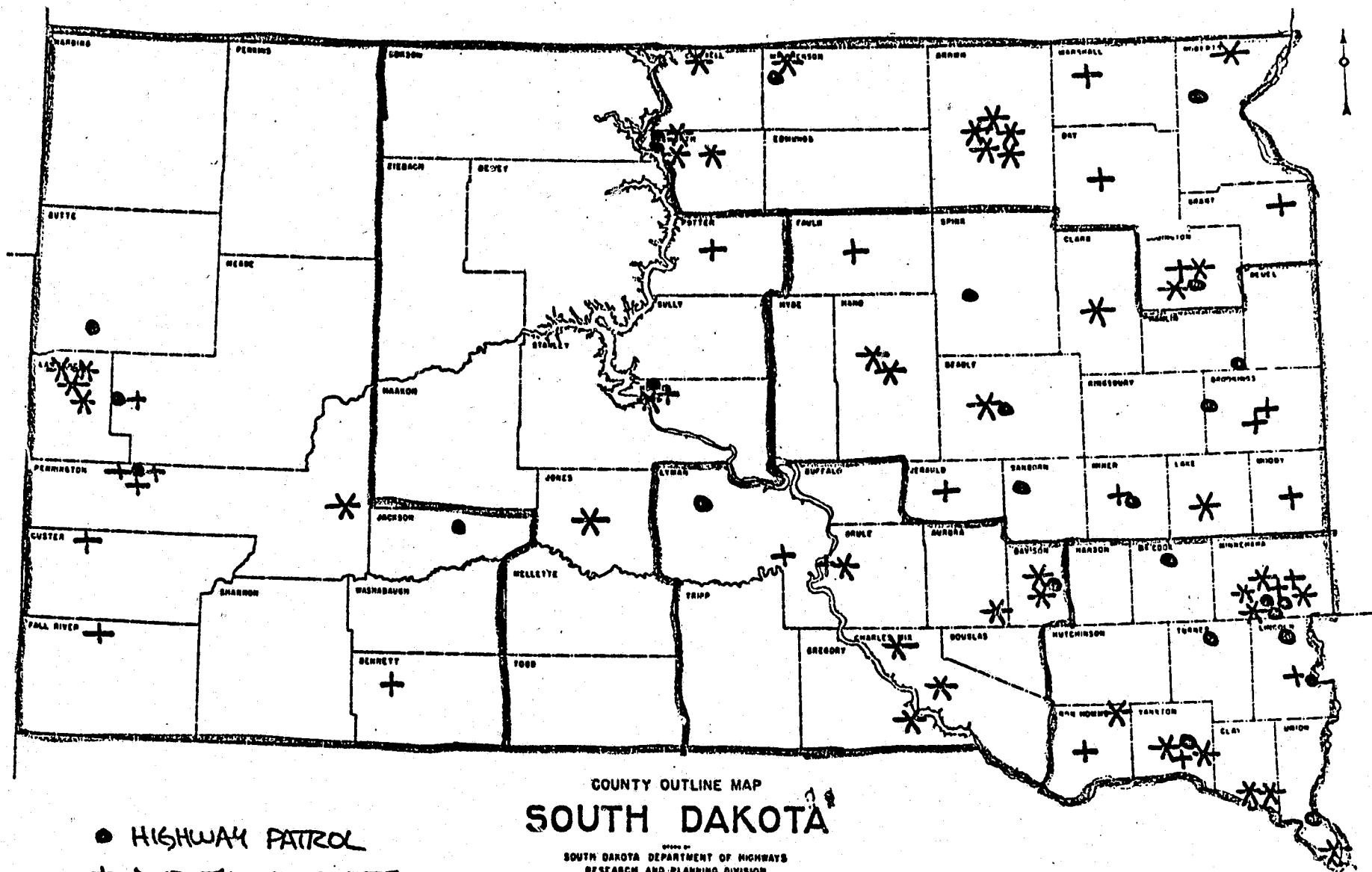
By message there follows the percentage of respondents that reflected a high frequency of calls to state radio (a rating of 5, 6 or 7).

NCIC local vehicle - 6%
NCIC non-local vehicle - 72%
NCIC non-local driver - 60%
Non-local driver's license - 38%
Non-local vehicle registration - 56%

A variance was discerned between the type of officer and the high frequency of requests to state radio. (Ratings of 5 or above)

Highway Patrol - 33%
Sheriff's Offices - 50%
Police Departments - 51%

INDIVIDUAL OFFICER RESPONDENTS BY STATE RADIO DISTRICT



2. What is the value of running those checks as far as:

- . Protecting yourself from a potentially dangerous situation
- . Detecting violations
- . Apprehending wanted persons/recovering stolen property

The percentage of total officers that rated the component parts of question two high, that is gave it a rating of 5,6 or 7, follows:

Protection - 85%
Detection - 76%
Apprehension - 66%

Percentages of high responses varied between officer types.

Highway Patrol - 68%
Sheriff's Offices - 83%
Police Departments - 82%

3. What is the value to you to have "hard copy" of the following types of messages?

- . NCIC check
- . Driver's license checks
- . Motor vehicle registration
- . State cases/Federal APB's
- . Weather bulletins
- . Road reports

The number of officers that placed a high value on "hard copy" in relationship to the total respondents produced the following percentages:

NCIC checks - 63%
Driver's license checks - 74%
Motor vehicle registration - 76%
State Cases/Federal APB's - 75%
Weather bulletins - 47%
Road reports - 53%

By type of officer, following is the percentage reporting an over-all high value on "hard copies".

Highway Patrol - 59%
Sheriff's Offices - 63%
Police Departments - 72%

4. What is the importance of receiving same day hard copy of the following messages?

- . NCIC checks
- . Driver's license checks
- . Motor vehicle registration
- . State cases/Federal APB's
- . Criminal histories

The following percentages show the value of one day obtainment of the hard copy by message type.

NCIC checks - 80%
Driver's license checks - 87%
Motor vehicle registration - 76%
State cases/Federal APB's - 79%
Criminal histories - 74%

The over-all value of one day receipt of the hard copy by type of officer is provided below:

Highway Patrol - 72%
Sheriff's Office - 84%
Police Department - 86%

The over-all response to the four questions asked the 95 randomly selected officers provides the following conclusions:

- (1) That the present teletype system is used quite extensively;
- (2) That it is of tremendous value to the individual officer in the areas of protection, detection and apprehension/recovering;
- (3) That a high value is placed on the hard copy and it's procurement in one day's time;
- (4) That the troopers in the highway patrol, on the average, do not place as much of an importance on the state-wide teletype system as do the other officer types.

The individual officer survey also contained two open ended questions that necessitated a narrative response. The first question reads as follows:

Are there other types of messages that it is helpful to receive "hard copy" of, and if so, must the hard copy be received the same day of the request?

The majority of the officers polled did not address this question. Of the thirty-seven officers that did respond, eight were highway patrolmen, twelve were deputy sheriffs and seventeen were local policemen. Their comments, by officer type, are listed below:

Highway Patrol -

- . Warrant verification
- . Complete driving record - same day
- . Secure information-immediately
- . Changes in motor carrier regulations - as soon as possible
- . Blood test results - as soon as possible

Deputy Sheriffs -

- . Warrants - same day
- . Wants other than state cases - same day
- . Communication of cases with other departments - same day
- . Warrant information from other agencies - same day

Local Police -

- . Confirmation of runaways, escapees and those AWOL - one hour
- . Verification of active warrants - same day
- . Conviction of traffic violations - as soon as received
- . Recovered property - immediately
- . M.O. on suspects in serious crimes - immediately
- . General information for officers protection - same day

A number of the respondents to the previous question referred to information that is currently provided on teletype and of which a hard copy is produced. The question must then be raised whether the local officers are adequately aware of what data can be secured through teletype. Examples of such responses include NCIC on subject and vehicles, warrant information, stolen property, suspects wanted and road and weather reports.

The last question on the survey also required a narrative answer. Comments were received from twenty-three highway patrolment, nineteen deputy sheriffs and twenty-eight local policemen. The question was:

"Please give us any other comments or feelings you have about the teletype system, especially concerning the hard copy aspect and the benefits of a two-way system. Only if we know how you feel can we improve the system."

The response to this question reflected the majority's feeling that the state-wide teletype system is a valuable and necessary tool for all law enforcement. Negative comments and problems with the system were voiced, but the over-all tone of the comments emphasized the need to continue the teletype system.

The main problems and comments made on the teletype system included:

- . Difficulty getting to a teletype machine at times due to the distance between officer and closest machine or office with machine not always open;
- . Slow response time [NCIC, criminal history, driver's history];
- . No need for hard copy on all calls to state radio - officer should be able to request if needed;
- . Cannot receive information from the driver's license or motor vehicle registration files except from 8am - 5 pm Monday through Friday;

The desire for a two-way system was voiced by officers from the Highway Patrol in Sioux Falls, Bon Homme Sheriff's Office; Grant County Sheriff's Office; Stickney Police Department; Madison Police Department and Aberdeen Police Department.

Only three officers stated they felt that teletype was not worth its usefulness. A highway patrolman from Mitchell who maintained no patrol duty believed the teletype was used too extensively. He preferred direct radio contact. A highway patrolman from Parker voiced his sentiment that only larger departments could justify the cost of a machine. A deputy sheriff from Miner County also felt the cost of the current teletype to the county outweighed its usefulness. He thought there were more important needs in his office where the money could be used.

For the most part, however, the individual officers strongly endorsed the teletype system. The hard copy aspect was noted as being important for accuracy and court usage. Also mentioned was the confidentiality it offered that the radio system could not provide. The teletype was said to eliminate much confusion and wasted air traffic over state radio. In summary, the statewide teletype system has been a giant step forward for the area of law enforcement. It has upgraded and improved the quality and function of police work by keeping the individual officer more adequately informed. The overwhelming majority of officers polled viewed the statewide teletype system is an invaluable tool to law enforcement.

User Agency Survey

The individual user survey was sent to each of the agencies maintaining an active teletype machine. There are 94 users on 84 machines within the statewide system. This figure breaks down to 3 district highway patrol offices, 1 headquarters highway patrol office, 64 county sheriff's offices, 5 tribal police departments and 15 city police departments. 74 responded to the survey plus a personal interview was conducted with personnel from the state highway patrol office. Surveys were returned from 57 counties, 10 cities, 4 tribes, and the 3 district patrol offices.

Respondents were asked to rate the value of specific message types from 1-7 with 4 representing a neutral value, 7 the highest value, and 1 the lowest value. The average numeric value assigned to each message type follows:

In-State Messages

Motor vehicle registration checks.	6.24
Driver license checks.	6.16
Criminal histories	5.98
Administrative police requests	4.91
State case/Federal APB's	5.95
Road reports	4.91
Weather bulletins.	4.87

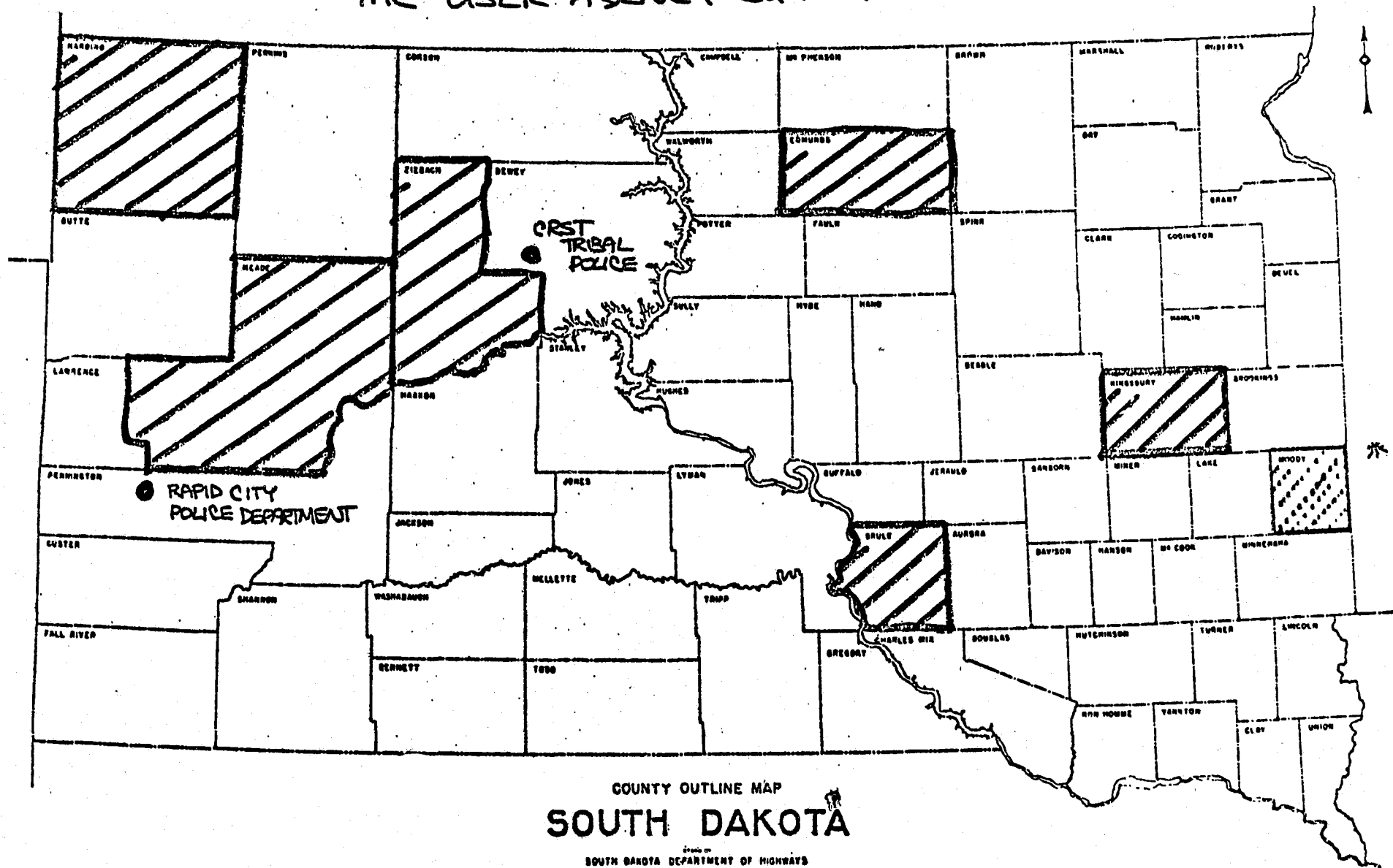
NLETS Inquiries (To other states)

Motor vehicle registration	6.04
Driver's license checks.	5.89
Criminal histories	5.87
Administration police requests	4.79
Road reports	4.54
Weather bulletins.	4.55

NCIC Requests

Vehicle/Property checks.	6.46
Wanted person check.	6.29

JURISDICTIONS WHICH DID NOT RESPOND TO THE USER AGENCY SURVEY



* ONE RESPONSE DID NOT HAVE AN AGENCY NAME IT WAS POST-MARKED SIOUX FALLS AND IS THOUGHT TO BE FROM MOODY COUNTY.

User agencies were next asked the importance they placed on hard copy for specific messages. Using again the 1-7 numeric value scale, averages were derived from their responses.

Motor vehicle registration checks	6.05
Driver's license checks	6.04
Administrative police requests.	4.87
State cases/Federal APB's	5.87
Road reports.	4.70
Weather bulletins	4.94
NCIC requested.	5.83

In regard to the transmittal of criminal histories through the mail, user agencies were asked if it was an acceptable means of communication. 7 was to denote a very acceptable means and 1 to be not acceptable. The average response rating was 3.3 with 21 users giving a rating of 5 or above, 9 answering with a neutral value of 4 and 43 reacting with a negative response of 3, 2 or 1.

The fourth question directed to those surveyed, asked the importance of receiving certain types of messages in a timely fashion. 7 value noted within minutes, 4 within 24 hours, and 1 within weeks. The average rating of importance for each message type was:

NCIC checks	6.74
Motor vehicle registrations	5.09
Driver's license checks	6.29
State cases/Federal APB's	5.86
Road reports.	5.12
Criminal histories.	5.65
Weather bulletins	5.34
Administrative police requests.	4.72

Since LEAA dollar support is gradually declining and will be terminated after FY 80, the slack will have to be picked up elsewhere, most likely by the locals. The question was then asked at what dollar cost for the teletype per month did the user exceed the benefits he derived from its use. Only sixty of those submitting a survey responded with a cost/benefit figure. Many provided only a narrative stating a dollar value could not be placed on such a necessary tool to law enforcement as teletype. Below is a break down of those who did designate a cost vs. benefit figure.

\$180.00	2 counties, 2 cities
157.50	1 county, 1 city
135.00	3 counties
112.50	9 counties, 1 city
90.00	11 counties, 3 cities
67.50	13 counties, 2 cities
45.00	1 county
22.50	2 counties

Many users reflected a problem of receiving additional dollars from their elected officials. 9 counties & 2 cities stated their County Commissioners

or city officials would not go any higher than the current cost to the locals of \$67.50.

The questionnaire included a section for Sheriffs only. They were first asked if they were in favor of the current statutory provision requiring all sheriffs to maintain a teletype machine. 44 responded yes and 12 no, giving a 78% favorable reaction to the statutory mandate. Comments were next solicited on their thoughts as to the present manner of distributing the costs of the system to the users. 20 stated it was a fair distribution and 25 felt it was not. Suggested alternatives for dividing costs included distribution by volume (3), population (4), user contributions (15), State (5) or crime rate (2).

Questions six and seven referred, respectively, to the need for training on the teletype system and whether there were problems reading or deciphering the codes of the current printouts. 14 sheriffs and 1 police department replied yes while 16 sheriffs and 9 police reported no to the need for training. The response was a little more split in regard to reading the teletype printouts with 10 sheriffs and 2 policemen stating yes and 47 sheriffs and 8 police stating no.

The question of whether the cost of two-way teletype could be justified at the local level was put forth. 32% of those sampled replied yes, 45% no, and 22% had no opinion. This inquiry was followed up by asking the number of hours a day a department had a dispatcher on duty. The table below depicts the number of dispatch hours in relationship to their reply to the 2-way justification question.

Dispatch Hours	Yes-Justified	No-not Justified	No Opinion
0	1	11	4
0-4	-0-	1	-0-
5-8	4	5	3
9-12	1	2	-0-
13-16	-0-	-0-	1
17-20	-0-	1	-0-
21-24	18	12	7

Less than half of the responding 71 users had the staff to man a teletype machine at all times the agency had officers in service. 27 counties and 7 cities stated an operator was available but 35 counties and 2 cities replied they did not have the personnel.

Whether there exists an absolute need for a statewide 2-way Teletype System was then asked of the respondents. Their 7-1 scale answers broke down as follows with the corresponding percent for each numeric value.

Numeric Value	7	6	5	4	3	2	1
# Respondents	12*	10	12	12**	12**	4	11
Percentage	16.4%	13.7%	16.4%	16.4%	16.4%	5.5%	15.1%

* 6 county, 6 city

** 10 county, 2 city

Cited as being an advantage to having a teletype system has been that it frees up air time and expedites the flow of law enforcement communications. Those polled were asked if they felt this statement was true. Sixty-seven of users replied yes, 2 said no and 4 were of no opinion.

Overall satisfaction with this present system was the last item to be measured by the survey. The numeric scale was once again use to rate the level of satisfaction. The outcome is illustrated in the table below.

Numeric Value	7	6	5	4	3	2	1
# Counties	25	15	15	6	2	1	-0-
# Cities	7	2	-0-	1	-0-	-0-	-0-
Total Respondents	32	17	15	7	2	1	-0-

This survey provided a volume of data upon which the need for and value of the present teletype system can be assessed. In addition, it yielded an insight into the possibility of implementing a total or partial two-way teletype system. Conclusions that were derived in part from this survey information will be addressed later.

Former User Survey

Surveys were mailed to those agencies who had dropped out of the teletype system. Four responses were received. Respondents included Sisseton - Whapeton Tribal Police, Deadwood Police Department, Wall Police Department and Redfield Police Department. The cost factor was listed as the primary or sole reason for departing from the teletype system. All the former users now receive teletype information from another source but noted that they do miss certain advantages of having a machine.

Tribal Police in Sisseton now must depend quite heavily on State Radio for its messages. If money is later available in their budget, they would again be interested in participating in the statewide teletype system. The Deadwood Police have consolidated with Lawrence County for teletype needs and have felt that the response time on requests has been hampered due to the large amount of traffic Lawrence County handles. The Wall Police Department also misses the benefits of housing a teletype machine, but they could not handle the cost to support the system. If the price to participate in teletype would decrease or if neighboring Highway Patrol and Game, Fish and Parks personnel would contribute to its cost, they then could afford to and like to once again be part of the system. The Redfield Police Department went into a central communications system with the Spink County Sheriff's Department. Their relationship seems to be working fairly well and there is little chance they will have their own machine in the near future. It is doubtful for one that the Local Common Council would approve of the acquisition of a separate terminal.

All four agencies reflected that they are cognizant of the benefits of a statewide teletype system. Economics, however, forced them to either combine with another agency on the cost to maintain a machine or to rely on a separate department's teletype assistance. The survey eliminated any conjecture that their departure from the system was at all attributed to any dissatisfaction with the statewide teletype network. Instead the former users emphasize the merits of the system and the importance of the information it carries.

Findings/Conclusions

The overall level of satisfaction with the current teletype system in South Dakota is high. The final question on the user agency survey asked each agency to rate its overall satisfaction with the current teletype on a scale of 1-7. The responses to that question are shown below:

Thoroughly Satisfied				Throughly Dissatisfied		
7	6	5	4	3	2	1
Brown	Bennett	Day	Perkins	Miner	Sully	
Charles Mix	Potter	Jackson	Hand	SDHP #3		
Fall River	Dewley	Tripp	Pennington			
Clay	Roberts	Hutchinson	McCook			
Lyman	Aurora	Yankton	SDHP #2			
Lake	Custer	Hamlin	Crow Creek			
Brookings	Minnehaha	Hanson	Edgemont			
Beadle	Clark	Gregory				
Mellette	Union	Lawrence				
Douglas	Walworth	Lincoln				
Bon Homme	Marshall	Spink				
Turner	Butte	Jerauld				
Sanborn	Aberdeen	Campbell				
Corson	Lead	Haakon				
Buffalo	SDHP #1	Faulk				
Hughes	Lower Brule					
Deuel	Pine Ridge					
Davison						
McPherson						
Codington						
Stanley						
Jones						
Grant						
Hyde						
Spearfish						
Bereford						
Brookings P.D.						
Sturgis						
Pierre						
Mitchell						
Vermillion						
Unknown						
Rosebud						

Sully County's dissatisfaction is probably due to a combination of low message volume and mechanical problems compounded by the expense to the county. Miner County is dissatisfied because of low volume of important messages and budgetary restraints.

In terms of the value of the types of messages that are sent over the teletype, most were highly rated. The aggregate feeling was that road reports and weather bulletins were the least valuable, but those messages still received slightly positive values. Those reports are provided as a public service and because of their sometimes lengthy nature, would not be broadcast over the air because of time. The available alternatives, (no dissemination, telephone) are unacceptable because of cost, and effort of transmission.

The responses to the various surveys are also very positive concerning the teletypes ability to provide hard copy of the various types of messages. Once again, road reports and weather bulletins are rated as least important along with administrative police requests. All still received a slightly positive values and from the perspective of State Radio, other types of dissemination are unacceptable.

From the results of the surveys and as the result of personal interviews, it is concluded that the speed of communication or timeliness is a very real benefit of the teletype system. Once again, the majority of all agencies thought it important that the types of messages now being carried via teletype be transmitted within minutes, or at least within twenty-four hours. Teletype is the only viable method of accomplishing this.

When looking at those three aspects (value, hard copy, timeliness) it is easy to conclude that the teletype is the most effective, in fact, probably the only, method that provides hard copy in a timely matter.

The major complaint mentioned by users of the teletype is in the timeliness of transmission of driver's records. Those records are manually retrieved by personnel in the Department of Public Safety and sent back to the requesting agency via teletype. They are necessary for determining the proper charge in some instances (DWI first offense, DWI 2nd, DWI 3rd) and should be transmitted quickly. Unfortunately, no one is available to transmit records at night or on weekends and bottlenecks result. Delays of several days were reported and this is unacceptable to the officer in the field.

A second area of dissatisfaction voiced by some individuals officers was in the speed that NCIC checks were returned. If all systems are operating correctly an NCIC inquiry and answer can be completed in under two minutes. Several Highway Patrol Troopers indicated that their NCIC transactions were taking 5 minutes or more, and therefore, were of little value to them in terms of officer safety. The frequency of this complaint seems to indicate that it is a problem in entering the inquiry into the teletype rather than a result of computer down time. Further study of this problem is in order.

The State has a definite interest in maintaining a statewide network. State Law Enforcement Officers, most notably the Highway Patrol, but also DCI agents and Game, Fish & Park's Wardens, utilize teletype machines located in sheriff's offices. 14 respondents indicated that Highway Patrol Troopers received information over their machines and 6 cited game wardens. It is suspected that the actual number of counties where Highway Patrolmen and Wardens receive information via teletype is probably 3 times that figure.

Additionally, the Division of Criminal Investigation has a definite interest in maintaining a statewide teletype network. The DCI needs a method to communicate its state cases (APB's) and police intelligence in a quick, accurate

way, and teletype is the best method available. Even if a particular county does not feel the need for a teletype machine, the DCI's interest may be strong enough to justify its placement.

South Dakota's teletype system is relatively primitive compared to surrounding states. Besides being perhaps the only state in the nation with a one-way capability, the state also has older model 100 word per minute printers. Other states are moving toward machines with Cathode Ray Tube displays and higher speed machines. State radio is in the process of "looking at" new, more silent teleprinters that type 300 words per minute. This should help alleviate a common complaint about the noise of existing machines.

There is a definite interest among some of the larger jurisdictions in having a two way capability. It is probable that the only way two-way teletype can be justified in most locations would be through the sharing of a machine by city and county law enforcement agencies. Areas of the state where there has been an expressed interest in going two-way, or where state radio thinks message volume is sufficient, are:

Sioux Falls/Minnehaha County	(existing)
Rapid City/ Pennington County	*
Deadwood/Lawrence County	
Sturgis/Meade County	*
Yankton/Yankton County	
Vermillion/Clay County	*
Brookings/Brookings County	*
Huron/Beadle County	
Watertown/Codington County	
Sisseton/Roberts County	
Aberdeen/Brown County	*
Mitchell/Davison County	*
Pierre/Hughes County/Stanley Co.	**

- * Consolidation on a two-way would replace two existing one-way machines
- ** One way machine would replace three existing one way machines

Other states have said that two-way machines can be justified in part by the increase in administrative messages transmitted. If the agencies listed above go two-way, it is expected that savings will result in phone expense, postage expense and perhaps personnel costs. No data is available to gauge these potential benefits, but the experience in other states has been positive.

A problem in converting to two-way, beside the increase in machine and line rental, is the necessity for a training program. Current state radio dispatchers feel that incorrect coding and format will be the largest obstacles to overcome. This is substantiated by the existance of on-going training programs in those states that have two-way systems. An additional concern is that the volume of user initiated messages may decline (as they did in Sioux Falls) once agency dispatchers have to make the entries.

The Highway Patrol feels that their use of a two-way teletype would more than be justified by the increased administrative load it could handle. Other methods somewhat similar to the teletype have been tried in the past and have failed due to expense and poor copy. The Nebraska state patrol utilizes the teletype in

this manner with good results. It should work in South Dakota also, especially with only a headquarters office and three district offices.

A major issue, and one that appears to be closest to the heart of most county commissions, is that of the cost. The statutory mandate without any provision for cost sharing is a problem now and it will become more so as the LEAA share of the cost declines. Other states pick up at least 50% of their system's costs and bill user agencies on differing formulas. Population and taxable valuation are methods used either singly or in combination by Montana and North Dakota. At any rate, it is patently unfair for Harding county (population 1900, with a one man Sheriff's office and one resident Highway Patrol Trooper), to pay the same costs as Minnehaha county (population 97,200, and over 150 city, county, and state law enforcement officers). Although Harding county did not return a survey, it is probable that the county does not think it is worth any more than the \$810 it now costs, and probably not even that.

RECOMMENDATIONS

1. The teletype system should be continued in the state of South Dakota after the expiration of support from the State Criminal Justice Commission.
2. The state should assume least 50% of the system's cost because of its importance to the Division of Criminal Investigation, the Highway Patrol, and to a much lesser extent, the Department of Game, Fish and Parks.
3. The legislative mandate for counties to furnish their Sheriff's teleprinters should establish a more equitable distribution of cost formula based on usage and/or ability to pay.
4. State Radio should investigate the feasibility and cost of establishing two way circuits for:

The Highway Patrol
Rapid City/Pennington County
Deadwood/Lawrence County
Sturgis/ Meade County
Pierre/Ft. Pierre/ Hughes/Stanley Counties
Aberdeen/Brown County
Sisseton/ Roberts County
Watertown/ Codington County
Brookings/ Brookings County
Huron/ Beadle County
Mitchell/ Davison County
Yankton/ Yankton County
Vermillion/ Clay County

5. State Radio should investigate the feasibility of eliminating machines in Turner Co. (Parker) and Day Co. (Webster) since machines are already available at State Radio districts there. Such a move would save \$2688 per year. Not quite as feasible, but using the same logic, would be the same move at Huron, Pierre, and Rapid City.
6. The Department of Public Safety should investigate the importance of timely response to drivers license history requests and if found to be important, take appropriate steps to improve service.

APPENDICES

Department of Public Safety

OFFICE OF THE SECRETARY
118 West Capitol Avenue
Pierre, South Dakota 57501



March 23, 1978

Dear

The Division of Law Enforcement Assistance has primary responsibility for the planning and administration of LEAA funds in the state. One of the projects that we have supported for the past 4-5 years directly benefits you - the State Law Enforcement Teletype.

Since 1969, over \$683,000 of federal funds have been awarded to State Radio for establishment and maintenance of the system. For the past three years, LEAA has picked up considerably more than half of the yearly teletype budget.

The problem that we all face is that LEAA money for operation of the teletype is being gradually phased out. In three short years, LEAA money for the teletype will no longer be available and new sources of revenue will have to be found. The current total annual budget for the teletype in this state is \$200,000.

Since there will undoubtedly be a difference of opinion as to who (city, county or state) should assume the LEAA share of the budget, further study of the teletype is merited. The State Crime Commission has directed the Division of Law Enforcement Assistance staff to research and evaluate the present teletype system. The end product of this research will be an analysis of the current importance of the system and the relative satisfaction of those who use it. Recommendations on system improvements and future cost sharing will also result.

The backbone of the Division of Law Enforcement Assistance's research effort is three questionnaires. Every agency that has had or still maintains a teletype has been asked to complete the survey form.

Additionally, you and approximately 100 other police, deputy sheriffs or highway patrolmen are being surveyed to get the perspective of the officer in the field. The enclosed form should take no more than 10 minutes of your time to complete. I encourage you to make any additional comments that are not adequately addressed on the survey, either in writing or by telephone. Laurie Merrick and Steve Flyger of the Division of Law Enforcement Assistance Evaluation Unit will be most grateful for your comments. They may be contacted at 224-3665.

In order for this research to be presented to the State Crime Commission in May, it is respectfully requested that this survey be returned as soon as possible.

In summation, I cannot over emphasize the importance of your response to this survey. Without your input, it will be difficult to chart the best course for the future of the teletype network.

Sincerely,

Donald C. Dahlin, Chairman
South Dakota Criminal Justice Commission

INDIVIDUAL OFFICER SURVEY

Appendix A-2

Name (print)

Age _____

How many years have you been a law enforcement officer? _____

Rank

Agency

Approximately how many hours each week do you spend on patrol? _____

INSTRUCTIONS: Please respond to the following questions by circling the value that is closest to the way you feel. The numbers 4 always represents a middle value with numbers 1 and 7 representing opposite extremes.

1. When you pull a vehicle over for a traffic violation, about how often do you call State Radio and:

	Always						Never
Run an NCIC Check on a local Vehicle	7	6	5	4	3	2	1
Run an NCIC Check on a non-local vehicle	7	6	5	4	3	2	1
Run an NCIC Check on the Driver (non-local)	7	6	5	4	3	2	1
Run a Drivers License Check (non-local)	7	6	5	4	3	2	1
Run a Motor Vehicle Registration Check (non-local)	7	6	5	4	3	2	1

2. What is the value of running those checks as far as:

	Extremely Valuable						Of No Value
Protecting you from a Potentially Dangerous Situation	7	6	5	4	3	2	1
Detecting Violations	7	6	5	4	3	2	1
Apprehending Wanted Persons/Recovering Stolen Property	7	6	5	4	3	2	1

3. What is the value to you to have "Hard Copy" of the following types of messages.

	Extremely Valuable						Of No Value
NCIC Checks	7	6	5	4	3	2	1
Drivers License Checks	7	6	5	4	3	2	1
Motor Vehicle Registration	7	6	5	4	3	2	1
State Cases/Federal APB's	7	6	5	4	3	2	1
Weather Bulletins	7	6	5	4	3	2	1
Road Reports	7	6	5	4	3	2	1

4. What is the importance of receiving same day hard copy of the following messages:

	Extremely Important					Not Important	
NCIC Checks	7	6	5	4	3	2	1
Drivers License Checks	7	6	5	4	3	2	1
Motor Vehicle Registration	7	6	5	4	3	2	1
State Cases/Federal APB's	7	6	5	4	3	2	1
Criminal Histories	7	6	5	4	3	2	1

5. Are there other types of messages that it is helpful to receive "hard copy" of, and if so, must the hard copy be received the same day of the request.

Type of Message

How Soon Should Message be Received.

6. Please give us any other comments or feelings you have about the teletype system, especially concerning the hard copy aspect and the benefits of a two-way system. Only if we know how you feel can we improve the system.

INDIVIDUAL OFFICER SURVEY TABULATIONS

1. When you pull a vehicle over for a traffic violation, about how often do you call State Radio and:

Message	Scale	Highway Patrol	Deputy Sheriffs	Municipal Police	TOTAL
Run a NCIC Check on a local Vehicle	7	0	0	1	1
	6	1	1	0	2
	5	1	2	0	3
	4	4	3	13	20
	3	6	3	9	18
	2	11	12	16	39
	1	4	5	3	12
Run a NCIC Check on a non-local Vehicle	7	0	9	9	18
	6	9	6	15	30
	5	7	5	8	20
	4	7	5	7	19
	3	3	0	2	5
	2	0	1	1	2
	1	1	0	0	1
Run a NCIC Check on the Driver (non-local)	7	0	5	7	12
	6	6	7	15	28
	5	6	4	7	17
	4	7	2	8	17
	3	7	6	4	17
	2	1	2	1	4
	1	0	0	0	0
Run a Drivers License Check (non-local)	7	0	2	4	6
	6	1	5	7	13
	5	6	3	8	17
	4	4	5	8	17
	3	7	3	10	20
	2	7	7	4	18
	1	2	1	1	4
Run a Motor Vehicle Registration Check (non-local)	7	0	5	8	13
	6	5	4	10	19
	5	3	7	11	21
	4	10	6	6	22
	3	3	1	3	7
	2	5	2	4	11
	1	1	1	0	2

INDIVIDUAL OFFICER SURVEY TABULATIONS

2. What is the value of running those checks as far as:

Message	Scale	Highway Patrol	Deputy Sheriffs	Municipal Police	TOTAL
Protecting you from a Potentially Dangerous Situation	7	7	12	24	43
	6	5	3	4	12
	5	5	6	6	17
	4	5	2	6	13
	3	3	0	1	4
	2	2	3	0	5
	1	0	0	1	1
Detecting Violations	7	4	12	14	30
	6	5	4	9	18
	5	7	6	7	20
	4	8	2	11	21
	3	2	0	1	3
	2	1	2	0	3
	1	0	0	0	0
Apprehending Wanted Persons/ Recovering Stolen Property	7	8	16	29	53
	6	12	5	5	22
	5	2	1	3	6
	4	5	2	3	10
	3	0	0	2	2
	2	0	1	0	1
	1	0	1	0	1

INDIVIDUAL OFFICER SURVEY TABULATIONS

3. What is the value to you to have "Hard Copy" of the following types of messages.

Message	Scale	Highway Patrol	Deputy Sheriffs	Municipal Police	TOTAL
NCIC Checks	7	3	9	18	30
	6	3	2	9	14
	5	6	4	6	16
	4	4	6	7	17
	3	5	2	1	8
	2	2	2	1	5
	1	4	1	0	5
Drivers License Checks	7	8	9	15	32
	6	6	0	9	15
	5	8	10	5	24
	4	2	4	11	17
	3	2	1	2	5
	2	0	2	0	2
	1	1	0	0	1
Motor Vehicle Registration	7	9	7	18	34
	6	1	9	7	17
	5	11	5	5	21
	4	3	3	10	16
	3	2	1	2	5
	2	0	1	0	1
	1	1	0	0	1
State Cases/Federal APB's	7	6	7	20	33
	6	4	8	10	22
	5	5	6	5	16
	4	9	4	6	19
	3	1	0	1	2
	2	1	1	0	2
	1	1	0	0	1
Weather Bulletins	7	1	2	11	14
	6	4	4	4	12
	5	7	4	8	19
	4	6	4	12	22
	3	3	9	4	16
	2	3	2	1	6
	1	3	1	2	6
Road Reports	7	21	4	12	17
	6	6	3	2	11
	5	5	6	9	21
	4	4	4	11	19
	3	2	6	5	13
	2	5	3	2	10
	1	3	0	1	4

INDIVIDUAL OFFICER SURVEY TABULATIONS

4. What is the importance of receiving same day hard copy of the following messages:

Message	Scale	Highway Patrol	Deputy Sheriffs	Municipal Police	TOTAL
NCIC Checks	7	11	16	31	58
	6	4	3	6	13
	5	2	2	1	5
	4	3	2	3	8
	3	2	0	0	2
	2	2	2	1	5
	1	3	1	0	4
Drivers License Checks	7	8	12	21	41
	6	17	3	11	31
	5	5	2	4	11
	4	2	8	6	16
	3	2	0	0	2
	2	1	1	0	2
	1	2	0	0	2
Motor Vehicle Registration	7	6	9	20	35
	6	5	8	10	33
	5	7	3	4	14
	4	4	3	7	14
	3	2	2	1	5
	2	1	1	0	2
	1	2	0	0	2
State Cases/Federal APB's	7	6	10	25	41
	6	4	4	9	17
	5	6	8	3	17
	4	6	1	5	12
	3	2	2	0	4
	2	2	1	0	3
	1	1	0	0	1
Criminal Histories	7	7	10	22	39
	6	6	4	5	15
	5	3	5	8	16
	4	6	5	5	16
	3	1	0	2	3
	2	2	2	0	4
	1	2	0	0	2

5. Are there other types of messages that it is helpful to receive "hard copy" of, and if so, must the hard copy be received the same day of the request.

Type of Message

How soon should
Message be Received

HIGHWAY
PATROL

Warrant verification
Complete driving record
NCIC on subject or vehicle
Secure information
Changes in motor carrier regulations
Personal messages from outside the area
Blood test results

No time given
Same day
Immediately
Immediately
As soon as possible
As soon as possible
As soon as possible

SHERIFF
OFFICE

Warrants
Road and weather reports
Records or 10-58
Subjects
Wants other than state cases
Communications with other departments
Warrant information from other agencies

Same day
When change occurs
With in 4-5 hours
As soon as possible
Same day
Same day
Same day

POLICE
DEPARTMENT

Confirmation of runaways, escapees, AWOLs
Varification of active warrants
Conviction of traffic violations
Warrant copies
10-29 checks for wanted records
Suspects wanted
Outstanding stolen property
Recovered property
Description and *modus operandi* of suspect
in serious crimes
Administrative messages
In and out-of-state warrants
General information for officer protection

One hour
Same day
As soon as possible
As soon as possible
As soon as possible
Immediately
Immediately
Immediately
Immediately
Same day
Same day
Same day

INDIVIDUAL OFFICER SURVEY

6. Please give us any other comments or feelings you have about the teletype system, especially concerning the hard copy aspect and the benefits of a two-way system. Only if we know how you feel can we improve the system.

SUMMARIES OF COMMENTS

	Highway Patrol	Deputy Sheriffs	Municipal Police
. Need for faster response on messages (especially NCIC, drivers history and criminal history checks)	10	5	1
. Too much information over teletype	2	0	0
. Hard copy is not always needed. Suggest receiving hard copy only on officer request	5	1	0
. Teletype is an important tool to law enforcement. A definite need for the system exists	5	8	16
. Need exists for a more readily assessable teletype machine	5	1	1
. Hard copy is not sufficient to produce in court as evidence in low grade misdemeanors	1	0	0
. Hard copy is an important aspect of teletype	2	3	5
. Teletype is only necessary in large agencies	1	1	0
. Need exists for two-way capability	1	3	5
. Teletype is valuable in freeing air time and disseminating private information	1	2	4
. State Radio should own & control teletype	1	0	0
. Teletype saves copying messages over the air	0	1	0
. Too many weather reports	0	1	0
. Should eliminate manual search on drivers license checks	0	1	0

Department of Public Safety

OFFICE OF THE SECRETARY
118 West Capitol Avenue
Pierre, South Dakota 57501



March 23, 1978

Dear

The Division of Law Enforcement Assistance has primary responsibility for the planning and administration of LEAA funds in the state. One of the projects that we have supported for the past 4-5 years directly benefits you - the State Law Enforcement Teletype.

Since 1969, over \$683,000 of federal funds have been awarded to State Radio for establishment and maintenance of the system. For the past three years, LEAA has picked up considerably more than half of the yearly teletype budget.

The problem that we all face is that LEAA money for operation of the teletype is being gradually phased out. In three short years, LEAA money for the teletype will no longer be available and new sources of revenue will have to be found. The current annual budget for the teletype is \$200,000.

Since there will undoubtedly be a difference of opinion on who (city, county or state) should assume the LEAA share of the budget, further study of the teletype is merited. To help us, we ask that you provide the State Crime Commission with your feelings on the current status of the teletype and suggest improvements that should be made in the future.

The attached survey form has been sent to all agencies who have a teletype machine and will be an integral part of our overall study. I encourage you to make any additional comments that are not adequately addressed on the survey, either in writing or by telephone. Laurie Merrick and Steve Flyger of the Division of Law Enforcement Assistance Evaluation Unit will be most grateful for your comments. They may be contacted at 224-3665. In order for a final report to be presented to the State Crime Commission in May, the DLEA evaluation unit needs your response by April 14, 1978. A stamped addressed envelope is enclosed for your convenience.

In summation, I cannot over emphasize the importance of your response to this survey. Without your input, it will be difficult to chart the best course for the future of the teletype network.

Sincerely,

Donald C. Dahlin, Chairman
South Dakota Criminal Justice Commission

DCD/mes

USER AGENCY SURVEY

Agency Name:

Name and Title of Person
Completing Form:Current Cost of Teletype
to Your Agency Per Month:

Number of Sworn Officers:

\$ _____

Are there other agencies sharing information from the expense of your machine? Yes ___ No ___
If yes, list them and their share of the expense.

INSTRUCTIONS: The following should be answered by circling the value that most nearly reflects your feelings. Value #4 is always a neutral value and is halfway between adjectives that are represented by numbers 1 and 7. As an example, your feelings toward the decriminalization of marijuana could be shown in the following manner.

EXAMPLE: Should the possession of less than one ounce of marijuana be decriminalized?

Absolutely	In All But A Few Instances	For The Most Part Yes	No Opinion Either Way	For The Most Part No	Only In Extreme Situations	Never
7	6	5	4	3	2	1

1. Please rate the value of the following types of messages that the teletype handles in terms of detection, apprehension, officer safety, and/or administrative efficiency.

	Of Great Importance					Not At All Important	
<u>IN-STATE MESSAGES</u>							
Motor Vehicle Registration Checks-----	7	6	5	4	3	2	1
Drivers License Checks-----	7	6	5	4	3	2	1
Criminal Histories-----	7	6	5	4	3	2	1
Administrative Police Requests-----	7	6	5	4	3	2	1
State Cases/Federal APB's-----	7	6	5	4	3	2	1
Road Reports-----	7	6	5	4	3	2	1
Weather Bulletins-----	7	6	5	4	3	2	1
<u>NLETS INQUIRIES (To other states)</u>							
- Motor Vehicle Registration-----	7	6	5	4	3	2	1
- Drivers License Checks-----	7	6	5	4	3	2	1
- Criminal Histories-----	7	6	5	4	3	2	1
- Administrative Police Requests-----	7	6	5	4	3	2	1
- Road Reports-----	7	6	5	4	3	2	1
- Weather Bulletins-----	7	6	5	4	3	2	1
<u>NCIC REQUESTS</u>							
- Vehicle/Property Checks-----	7	6	5	4	3	2	1
- Wanted Person Check-----	7	6	5	4	3	2	1

2. How important is it from your perspective that "Hard Copy" be provided to you for the following types of messages:

	Of Great Importance					Not At All Important	
Motor Vehicle Registration Checks-----	7	6	5	4	3	2	1
Drivers License Checks-----	7	6	5	4	3	2	1
Administrative Police Requests-----	7	6	5	4	3	2	1
State Cases/Federal APB's-----	7	6	5	4	3	2	1
Road Reports-----	7	6	5	4	3	2	1
Weather Bulletins-----	7	6	5	4	3	2	1
NCIC Requests-----	7	6	5	4	3	2	1

3. Federal regulations (28 CFR) stipulate that criminal histories must be complete, accurate, and transmitted in a secure manner to insure privacy. Transmission by teletype is acceptable; the only other viable method is thru the U.S. Postal Service, which takes several days.

Is the transmittal of criminal histories thru the mail an acceptable means of communication?

Very Acceptable						Not Acceptable
7	6	5	4	3	2	1

4. How important is it that the types of information listed below are transmitted to you in a timely fashion?

	Important: Of Some Within Importance: Minutes Within 24 Hrs.					Not Important: Within Weeks	
NCIC Checks	7	6	5	4	3	2	1
Motor Vehicle Registration	7	6	5	4	3	2	1
Drivers License Checks	7	6	5	4	3	2	1
State Cases/Federal APB's	7	6	5	4	3	2	1
Road Reports	7	6	5	4	3	2	1
Criminal Histories	7	6	5	4	3	2	1
Weather Bulletins	7	6	5	4	3	2	1
Administrative Police Requests	7	6	5	4	3	2	1

5. The current average total cost per month per machine (including line mileage) is \$180. The amount billed to users is 3/8 of that or \$67.50. While LEAA support declines, and when it is finally terminated, local users will undoubtedly be asked to pick up the slack. At what point does the dollar cost of the teletype per month to you exceed the benefits you derive from its use.

\$180.00 \$157.50 \$135.00 \$112.00 \$90.00 \$67.50 \$45.00 \$22.50 (circle one)

COMMENTS:

This Question for Sheriffs Only (municipal Police Please Go Directly to the Next Page)

The cost to you for the teletype is arrived at by dividing the total system cost by the number of users. If the number of users declines, the average cost to those still on the system increases.

It is assumed that the victims of criminal acts, as well as the investigating officers in the jurisdiction in which the crime occurred, are tremendously interested in finding the perpetrators of that act. Not only that, few communities want persons who have committed crimes and who are wanted elsewhere living in their midst. In this day of citizen mobility this demands cooperation and communication between law enforcement officers on a state and regional basis and is partly evidenced by the dissemination of state cases and Federal APB's on the teletype.

Keeping those cost and cooperation issues in mind, are you in favor of the current statutory requirement that all sheriffs must maintain a teletype? Yes___ No___

Are there any better or more fair ways to distribute the costs of the system to users? Yes___ No___

Please use the space below to briefly explain your answers.

6. Has the intended value or purpose of the current teletype system ever been fully explained to you, and if not, is there a need for training of that sort?

7. Do you have any problems in reading or deciphering the codes of the current printouts on your teletype machine? If yes, explain.

8. A two-way teletype machine would allow for individual agencies to communicate with each other thru their teleprinters. This additional capability would require additional computer memory, additional line circuits, new teleprinters, trained operators, etc., and would roughly double the cost of the current system. On the other hand, your long distance phone bill should decrease and dispatcher time at State Radio should be freed up.

Do you think that the additional cost of two-way teletype can be justified by savings in other areas or by increased usage, i.e., NLETS, NCIC Inquiries?

Yes___ No___ No Opinion___

How many hours each day do you have a dispatcher on duty?_____

Is there now, or would there be someone able to operate the teletype machine in your office at all times that either you or your Patrolmen/Deputies are in service? Yes___ No___

To what degree do you believe there exists An Absolute
a need for a two-way teletype network in Need Absolutely
the state. 7 6 5 4 3 2 1
No Need

9. Are there additional types of messages that could be transmitted over the teletype that would be of value to you? One example might be summaries of Supreme Court decisions. Please list your additions in order of priority.

1. _____
2. _____
3. _____
4. _____

10. If you are sharing a machine with another agency, what type of daily access do they have to it. (Circle One)

24 Hours

18-24 Hours

12-18 Hours

8-12 Hours

Less Than 8 Hours

11. Do you feel that the existance of the teletype system frees up air time and expedites the flow of Law Enforcement Communications? Yes___ No Opinion ___ No___

12. Please rate your overall satisfaction with the current teletype system on the scale below:

Thoroughly
Satisfied

7

6

5

4

3

2

Thoroughly
Dissatisfied

1

Any final comments you have will be appreciated. Check here if you would like a summary of the survey results. Thank you for your time.

USER AGENCY SURVEY RESULTS

1. Please rate the value of the following types of messages that the teletype handles in terms of detection, apprehension, officer safety, and/or administrative efficiency.

MESSAGE	RATING SCALE						
IN-STATE MESSAGES	7	6	5	4	3	2	1
Motor Vehicle Registration Checks	43	15	11	3	1	0	1
Drivers License Checks	39	17	13	1	1	1	1
Criminal Histories	34	20	11	1	3	2	1
Administrative Police Requests	13	16	16	15	5	5	2
State Cases/Federal APB's	32	21	7	5	6	0	0
Road Reports	20	8	17	11	6	7	1
Weather Bulletins	25	13	10	13	3	8	1
NLETS INQUIRES (To other states)	7	6	5	4	3	2	1
Motor Vehicle Registration	35	17	15	3	2	0	1
Drivers License Checks	33	17	14	4	2	2	1
Criminal Histories	36	13	12	7	2	2	1
Administrative Police Requests	28	8	15	15	9	6	2
Road Reports	12	8	17	14	10	6	3
Weather Bulletins	12	14	12	14	9	6	5
NCIC REQUESTS	7	6	5	4	3	2	1
Vehicle/Property Checks	53	9	8	0	1	2	0
Wanted Person Check	54	8	6	0	2	2	1

USER AGENCY SURVEY RESULTS

2. How important is it from your perspective that "Hard Copy" be provided to you for the following types of messages:

MESSAGE	RATING SCALE						
	7	6	5	4	3	2	1
Motor Vehicle Registration Checks	35	19	11	7	2	0	0
Drivers License Checks	32	20	12	7	1	0	0
Administrative Police Requests	18	13	12	16	5	4	5
State Cases/Federal APB's	35	14	12	6	5	0	1
Road Reports	16	12	15	14	4	8	5
Weather Bulletins	16	18	15	9	7	5	4
NCIC Requests	37	14	6	12	0	1	3

3. Federal regulations (28 CFR) stipulate that criminal histories must be complete, accurate, and transmitted in a secure manner to insure privacy. Transmission by teletype is acceptable; the only other viable method is thru the U.S. Postal Service, which takes several days.

Is the transmittal of criminal histories thru the mail an acceptable means of communication?

SCALE RESPONSES	7	6	5	4	3	2	1
	4	3	14	9	19	8	16

4. How important is it that the types of information listed below are transmitted to you in a timely fashion?

MESSAGE	7	6	5	4	3	2	1
NCIC Checks	63	6	2	3	0	0	0
Motor Vehicle Registration	47	18	4	5	0	0	0
Drivers License Checks	39	21	11	3	0	0	0
State Cases/Federal APB's	28	21	12	11	0	1	0
Road Reports	15	21	15	9	5	5	2
Criminal Histories	22	25	9	14	2	1	0
Weather Bulletins	18	22	13	9	4	6	2
Administrative Police Requests	12	11	21	17	4	6	3

USER AGENCY SURVEY RESULTS

- The current average total cost per month per machine (including line mileage) is \$180. The amount billed to users is 3/8 of that or \$67.50. While LEAA support declines, and when it is finally terminated, local users will undoubtedly be asked to pick up the slack. At what point does the dollar cost of the teletype per month to you exceed the benefits you derive from its use.

Cost/Benefit

\$180.00	\$157.50	\$135.00	\$112.00	\$90.00	\$67.50	\$45.00	\$22.50
13	2	3	10	14	15	1	2

COMMENTS:

County or City will not go any higher

11

This Question for Sheriffs Only (Municipal Police Please Go Directly to the Next Page)

The cost to you for the teletype is arrived at by dividing the total system cost by the number of users. If the number of users decline, the average cost to those still on the system increases.

It is assumed that the victims of criminal acts, as well as the investigating officers in the jurisdiction in which the crime occurred, are tremendously interested in finding the perpetrators of that act. Not only that, few communities want persons who have committed crimes and who are wanted elsewhere living in their midst. In this day of citizen mobility this demands cooperation and communication between law enforcement officers on a state and regional basis and it partly evidenced by the dissemination of state cases and Federal APB's on the teletype.

Keeping those cost and cooperation issues in mind, are you in favor of the current statutory requirement that all sheriffs must maintain a teletype?

YES	NO
44	12

Are there any better or more fair ways to distribute the costs of the system to users?

YES	NO
20	25

5. Comments on alternative ways to distribute cost:

Distribute cost by volume.....3
 Distribute cost by population.....4
 User contribution.....15
 State Support.....5
 Distribute cost by crime rate.....2

6. Has the intended value or purpose of the current teletype system ever been fully explained to you, and if not, is there a need for training of that sort?

YES	NO
15	25

7. Do you have any problems in reading or deciphering the codes of the current printouts on your teletype machine?

YES	NO
12	55

A two-way teletype machine would allow for individual agencies to communicate with each other thru their teleprinters. This additional capability would require additional computer memory, additional line circuits, new teleprinters, trained operators, etc., and would roughly double the cost of the current system. On the other hand, your long distance phone bill should decrease and dispatcher time at State Radio should be freed up.

Do you think that the additional cost of two-way teletype can be justified by savings in other areas or by increased usage, i.e., NLETS NCIC Inquiries?

YES	NO	NO OPINION
24	34	17

How many hours each day do you have a dispatcher on duty?

0	1-4	5-8	9-12	13-16	17-20	21-24
16	1	12	3	1	1	37

8. Is there now, or would there be someone able to operate the teletype machine in your office at all times that either you or your Patrolmen/Deputies are in service?

YES	NO
34	37

To what degree do you believe there exists an absolute need for a two-way teletype network in the State.

	7	6	5	4	3	2	1	
	12	10	12	12	12	4	11	

9. Are there additional types of messages that could be transmitted over the teletype that would be of value to you? One example might be summaries of Supreme Court decisions.

1. Inter-department Communications
2. Local warrants between departments
3. Administrative information
4. Supreme Court decisions
5. Penitentiary releases and admissions - daily
6. Data pertaining to number of accidents, injuries, etc.
7. Court dispositions on subjects from local area
8. Prisoners in jail in area
9. Criminal movement data
10. National Storm Forecast data
11. Criminal Histories (national level)
12. List of persons there are warrants for

10. If you are sharing a machine with another agency, what type of daily access do they have to it.

24	18-24	12-18	8-12	0-8
46	2	0	1	3

11. Do you feel that the existence of the teletype system frees up air time and expedites the flow of Law Enforcement Communications?

YES	NO	NO OPINION
67	2	4

12. Please rate your overall satisfaction with the current teletype system on the scale below:

7	6	5	4	3	2	1
32	17	15	7	2	1	0



Department of Public Safety

DIVISION OF LAW ENFORCEMENT ASSISTANCE
200 West Pleasant Drive
Pierre, South Dakota 57501
(605) 224-3665

March 23, 1978

Dear

The Division of Law Enforcement Assistance has primary responsibility for the planning and administration of LEAA funds in the state. One of the projects we have supported for the past 4-5 years has been the state teletype system.

Since 1969, over \$683,000 of federal funds have been awarded to State Radio for the establishment and maintenance of the system. For the past three years, LEAA has provided more than half the yearly cost of teletype. It's current annual budget is approximately \$200,000.

The problem the system now faces is that LEAA money for the support of teletype is being gradually phased out. In three short years LEAA funds for the teletype system will no longer be available and new sources of revenue will have to be found.

The State Criminal Justice Commission believes the situation warrants further study on the State Law Enforcement Teletype System. As a former user of the system, we ask for your assistance by providing the State Crime Commission with your opinion of teletype and suggested improvements that should be made in the future.

The attached survey form has been sent to all agencies who have ceased to participate in the teletype system. The questionnaire will be an integral part of our overall study. I also encourage you to make any additional comments that are not adequately addressed on the survey, either in writing or by telephone. Steve Flyger and Laurie Merrick of the Division of Law Enforcement Assistance Evaluation Unit will be most grateful for your comments. They may be contacted at 224-3665.

In order for a final report to be presented to the State Crime Commission in May, the DLEA Evaluation Unit requests that the survey be returned via the enclosed envelope by April 14.

In summation, I cannot over emphasize the importance of your response to this survey. Without your input, it will be difficult to chart the best course for the future of the teletype network.

Sincerely,

Donald C. Dahlin

Donald C. Dahlin, Chairman
South Dakota Criminal Justice Commission

DCD:ckl

Enclosure

QUESTIONNAIRE FOR FORMER USERS
OF THE STATE TELETYPE SYSTEM

NAME OF AGENCY

RESPONDENT'S NAME AND TITLE

1. Reason(s) why your agency decided to drop out of the teletype network? _____

2. What aspect(s) of the state system do you now miss? _____

3. Using 5 to denote great importance and 1 to denote no importance, rate the following messages as to their value to your agency's operation?

Administrative Police Requests	5	4	3	2	1
NCIC Checks	5	4	3	2	1

IN-STATE MESSAGES:

Motor Vehicle Registrations	5	4	3	2	1
Administrative Messages	5	4	3	2	1
State Cases/Federal APB's	5	4	3	2	1
Road Reports	5	4	3	2	1
Weather Bulletins	5	4	3	2	1
Criminal Histories	5	4	3	2	1

OUT-OF-STATE MESSAGES:

Motor Vehicle Registrations	5	4	3	2	1
Administrative Messages	5	4	3	2	1
State and Federal APB's	5	4	3	2	1
Road Reports	5	4	3	2	1
Weather Fulletins	5	4	3	2	1
Criminal Histories	5	4	3	2	1

4. How is your agency now receiving the information that was previously provided to you on teletype? _____

5. Please list advantages and problems of the system, both from your perspective and that of your city government.

Advantages

1. _____
2. _____
3. _____
4. _____

Problems

1. _____
2. _____
3. _____
4. _____

6. Do you have any suggestions on how the teletype system can be improved? _____

7. Using the previous value scale, was it important to have a hard copy for the following messages?

Administrative Police Request	5	4	3	2	1
NCIC Checks	5	4	3	2	1

IN-STATE MESSAGES:

Motor Vehicle Registrations	5	4	3	2	1
Administrative Messages	5	4	3	2	1
State Cases/Federal APB's	5	4	3	2	1
Road Reports	5	4	3	2	1
Weather Bulletins	5	4	3	2	1
Criminal Histories	5	4	3	2	1

OUT-OF-STATE MESSAGES:

Motor Vehicle Registrations	5	4	3	2	1
Administrative Messages	5	4	3	2	1
State and Federal APB's	5	4	3	2	1
Road Reports	5	4	3	2	1
Weather Bulletins	5	4	3	2	1
Criminal Histories	5	4	3	2	1

8. Has the time element in receiving hard copy been a problem since your agency ceased to be a part of the network? Yes____ No____
 If Yes, explain _____

9. As you are probably aware, the cost of the teletype system is distributed out each month to the users based on total cost ÷ number of machines. Each agency then pays the same amount no matter what the individual cost is for providing the service. Did you have any complaints on this method of billing? Yes____ No____ Explain: _____

10. Under what conditions, if any, would your agency be interested in participating once again in a teletype system? _____

11. Weighing cost against benefits derived, at what monthly charge would you be willing to provide financial support to the current teletype system?

\$180 - \$140 - \$100 - \$60 - \$20 - \$00

12. Weighing cost against benefits derived, at what monthly charge would you be willing to provide financial support to a two-way teletype system?

\$360 - \$280 - \$200 - \$120 - \$40 - \$00

13. Any further comments: _____

14. Would you like a summarization of the responses derived from this survey? Yes___ No___

RESPONSES TO FORMER USER SURVEY

1. Reason (s) why your agency decided to drop out of the teletype network?

Redfield Police Department - Now part of central communications system with Spink County Sheriff's department.

Wall Police Department - Cost

Deadwood Police Department - Dispatching was consolidated with Lawrence County.

Sisseton Wahpeton Tribal Police - Cost

2. What aspect (s) of the state system do you now miss?

Redfield Police Department - None

Wall Police Department - Motor Vehicle Registrations, Weather Reports, State cases

Deadwood Police Department - The immediate reply to their requests

Sisseton - Now receive messages primarily over the air. Do not receive all the messages provided by the teletype system.

3. Using 5 to denote great importance and 1 to denote no importance, rate the following messages as to their value to your agency's operation?

MESSAGES	SCALE	5	4	3	2	1
Administrative Police Request		1	1	1	1	
NCIC Checks		3		1		
IN-STATE MESSAGES						
Motor Vehicle Registrations		2	2			
Administrative Messages		1	2		1	
State Cases/Federal APB's		3	1			
Road Reports		1	1	1	1	
Weather Bulletins		2		2		
Criminal Histories		2	1	1		
OUT-OF STATE MESSAGES						
Motor Vehicle Registrations		3	1			
Administrative Messages		1	1	1	1	
State and Federal APB's		4				
Road Reports		1		2	1	
Weather Bulletins		1		2	1	
Criminal Histories		2		2		

4. How is your agency now receiving the information that was previously provided to you on teletype?

Redfield Police Department - through the central dispatching and communication system at the county sheriff's office

Wall Police Department - State Radio or teletype through Pennington County Sheriff's Office

Deadwood Police Department - On the telephone intercom and by having the hard copy brought over from the Sheriff's Office by the officer on duty.

Sisseton - Wahpeton - By State Radio and the teletype at the Sheriff's Office in Sisseton

5. Please list advantages and problems of the system, both from your perspective and that your city government.

Advantages

Hard copy of messages
Saves radio air time
Less chance of error than voice communication

Problems

Budget
Maintenance of the system

6. Do you have any suggestions on how the teletype system can be improved?

Would like more immediate reply on some requests - Deadwood Police Department

7. Using the previous value scale, was it important to have a hard copy for the following messages?

MESSAGES	SCALE	5	4	3	2	1
Administrative Police Request			2	1	1	
NCIC Checks		2	1	1		
IN-STATE MESSAGES						
Motor Vehicle Registrations		4				
Administrative Messages		1	1	1	1	
State Cases/Federal APB's		4				
Road Reports		1	2	1		
Weather Bulletins		1	2		1	
Criminal Histories		2		2		
OUT-OF-STATE MESSAGES						
Motor Vehicle Registrations		2	2			
Administrative Messages			1	2	1	
State and Federal APB's		3	1			
Road Reports		1	2		1	
Weather Bulletins		1		2	1	
Criminal Histories		2	1	1		

8. Has the time element in receiving hard copy been a problem since your agency ceased to be a part of the network?

<u>No - 2</u>	<u>Yes - 2</u>
Redfield PD	Deadwood PD
Wall PD	Sisseton Wahpeton

9. As you are probably aware, the cost of the teletype system is distributed out each month to the users based on total cost ÷ number of machines. Each agency then pays the same amount no matter what the individual cost if for providing the service. Did you have any complaints on this method of billing?

<u>No - 3</u>	<u>Yes - 1</u>
Redfield PD	Wall - billing should be by
Deadwood PD	amount of use
Sisseton Wahpeton	

10. Under what conditions, if any, would your agency be interested in participating once again in a teletype system?

Redfield PD Present system with county is satisfactory. Chief of Police doubts if Common Council would approve a separate machine for the police department.

Wall PD If cost would decline or if the Highway Patrol and Department of Game, Fish and Parks would contribute to the cost then the Wall PD would be interested in joining the system again.

Deadwood PD Dispatching is consolidated with the county so there is no need for a teletype machine in the police department.

Sisseton Wahpeton When money is available in their budget they would again be interested in a teletype machine.

11. Weighing cost against benefits derived, at what monthly charge would you be willing to provide financial support to the current teletype system?

\$180	\$140	\$100	\$60	\$20	\$00
			2		

12. Weighing cost against benefits derived, at what monthly charge would you be willing to provide financial support to a two-way teletype system?

\$360	\$280	\$200	\$120	\$40	\$00
			1	1	

13. Any further comments?

Smaller departments cannot support the teletype on their present budget. All departments that have Highway Patrol units, Game, Fish and Parks personnel or DCI agents working out of their office should be supplemented by the state-Wall Police Department.

Before the consolidation took effect in January 1977, the Deadwood Police Department did all dispatching for Lawrence County. It was with the understanding that when the dispatching was consolidated with the county that there would be no cost involved to the city for the services provided with the dispatching and teletype system - Deadwood Police Department.

The teletype is a very important tool to law enforcement. Every police department should have a teletype - Sisseton Wahpeton Tribal Police.

DIVISION OF CRIMINAL INVESTIGATION
IDENTIFICATION AND COMMUNICATION

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Pierre, South Dakota 57501

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This publication was printed at a cost of 10 cents per copy. A total of 570 copies are printed. The purpose of this publication is to disseminate crime information to law enforcement agencies as a part of the duties required in SDCL 23-3-16.

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* * * SPECIAL NOTICES * * *

The Division of Law Enforcement Assistance (DLEA) staff, with the advice of the State Crime Commission is conducting research regarding the current Law Enforcement Teletype system. This research is being undertaken to improve the operation of the system as well as to evaluate the current importance and effectiveness of the teletype.

Much of the evaluation phase will rely on input from you, the users of the system. To gather your opinions, DLEA staff has recently mailed out surveys to all agencies that maintain teleprinters, those agencies that formerly had teleprinters, and approximately 115 local patrol officers, deputy sheriffs, and state troopers.

If you receive a survey, it is very important to us that it be completed and returned by April 14, 1978. The time that it takes to complete the survey is no more than 30 minutes and probably much less.

If you need any clarification on how to fill out the survey forms, please call either Laurie Merrick or myself at the DLEA. Our number is 224-3665. I thank you in advance for your time and cooperation.

Steve Flyger
Evaluation Specialist
DLEA

* * * * *

END