

LAW ENFORCEMENT ASSISTANCE ADMINISTRATION (LEAA)

POLICE TECHNICAL ASSISTANCE REPORT

SUBJECT Manpower and Operations Study

REPORT NUMBER 76-003-036

FOR North Dakota Highway Patrol
Population : 680,000
Police Strength: (Sworn): 95
Total : 116.5
Square Mile Area : 70,655

CONTRACTOR Public Administration Service
1776 Massachusetts Avenue, Northwest
Washington, D. C. 20036

CONSULTANTS Samuel G. Chapman
Howard W. Edwards
Bernard L. Garmire

CONTRACT NUMBER J-LEAA-002-76

DATE May 1, 1976

68300

NCJRS

JUN 12 1980

ACQUISITIONS

FILE
DO NOT

Table of Contents

	Page
I. INTRODUCTION	1
II. STATEMENT OF THE PROBLEM	4
III. ANALYSIS OF THE PROBLEM	6
Historical Background	6
Duties and Responsibilities of the Highway Patrol	6
Current Organization Structure	8
Organizational Improvement Needed	9
Current Staffing Practices	12
Administration	12
Table 1: Current Staffing of The North Dakota Highway Patrol	13
Operations	15
Table 2: Staffing Patterns for the Eight Districts	16
Management Practices	17
Executive Direction	17
Management Information	19
Planning	20
Internal Control Practices	22
Rules, Regulations, and Written Directives	23
Fiscal Control	24
Inspections	25
Internal Discipline	26
Training	28
Training Program Needs	28
Recruit Training	28
In-Service Training	29
Supervisory and Management Training	30
Training Schedule Development and Program Staffing	30
Curriculum Development and Program Evaluation	31
Other Concerns	31
Training Facility Needs	32
Personnel Management Practices	33
Compensation Practices	34
Use of Civilians	35
Inter-Local Governmental Agreement	36
Facilities and Equipment	37
Facilities	37
Equipment	38
Communications	38
Manpower Requirements	39
Workload Levels and Statistics	40
Table 3: Summary of Activities and Services North Dakota Highway Patrol	41
Table 4: Hours Spent on Activities and Services North Dakota Highway Patrol	42

	Page
Projected Workload Levels	43
Recommended Staffing Levels	44
Table 5: Process for Determining Staffing Requirements Based on Workload and Activity Levels	47
Table 6: Average Number of Man-hours Available Annually Per Officer North Dakota Highway Patrol	50
Table 7: Manpower Availability Factor North Dakota Highway Patrol	51
Table 8: Current and Proposed Staffing Levels North Dakota Highway Patrol	52
IV. FINDINGS AND CONCLUSIONS	53
V. SUMMARY OF RECOMMENDATIONS	56
Organization	56
Staffing	57
Management	58
Communications	58
Training	58
Inter-Governmental Relations	59
Facilities and Equipment	59
Personnel Management Practices	59
- Exhibits -	
Chart I - North Dakota Highway Patrol Organizational Chart	60
II - Proposed Organization of the North Dakota Highway Patrol	61
- Appendix -	
I - Performance-Cost Decision-Making System for Field Policing Functions	62

I. INTRODUCTION

The North Dakota Highway Patrol requested technical assistance in (1) assessing its central office operations; (2) analyzing its management practices; and (3) determining manpower requirements for the next five years. The report that follows summarizes the consultants' activities, project findings and conclusions, and recommendations resulting from the assistance provided.

Following are the names of key persons involved in the initiation and processing of the request for technical assistance:

Requesting Agency: The North Dakota Highway Patrol
 Col. Ralph M. Wood
 Superintendent, NDHP

State Planning Agency: North Dakota Combined Law
 Enforcement Council
 Mr. Michael Hill
 Law Enforcement Coordinator

Approving Agency: LEAA, Region VIII (Denver)
 Mr. James Vetter
 Police Specialist

On-site evaluation and data collection were conducted during the period of February 4 - 6, 1976. While on-site, the consultants (1) interviewed key members of the Highway Patrol, (2) devoted several hours to on-site observations of central office operations and procedures; and (3) reviewed historical data such as service activity reports and other pertinent documents.

Persons contacted during the study included:

The Hon. Arthur A. Link
Governor, State of North Dakota

Col. Ralph M. Wood
Superintendent, North Dakota Highway Patrol

Lt. Col. Ivan Hendricksen
Assistant Superintendent, NDHP

Maj. Orlin Benson
Operations Officer, NDHP

Lt. James Martin
Director of Training, NDHP

Lt. Arden Johnson
Motor Vehicles Inspection Officer, NDHP

Lt. Norman Evans
Safety Director, NDHP

Ms. Mary Schmidt
Data Processing Coordinator

Ms. Amanda Paulson
Accountant

Ms. Donna Arneson
Secretary to the Superintendent

Mr. James Johnson, Ph.D.
Director, REAP Project

Mr. Robert Nelson
Highway Safety Division
North Dakota Highway Department

The report that follows represents the findings and conclusions of the consultants assigned to the project. The analyses performed are based upon data obtained and observations made during the three-day on-site visit. It should be mentioned here that the study was not intended to be a comprehensive review of all elements related to the question of organization, management, and manpower allocation. But instead, the study was intended to:

(1) generally assess the operation and management practices of the Patrol,
(2) to identify those readily observable problems confronting the NDHP as
related to the issues in items 1, and (3) to make recommendations for
improvement as necessary. The statements and recommended courses of action
contained herein should be viewed in this context.

II. STATEMENT OF THE PROBLEM

The North Dakota Highway Patrol anticipates increases in service demands as a result of the full implementation of a coal development project in the Western and Central sections of the State. Indications are that there will be significant increases in population and motor vehicle traffic resulting from the project. The Superintendent of the North Dakota Highway Patrol expressed his concern about the patrols ability to provide additional services with existing resources. Specific questions related to these concerns included:

- * Are existing manpower resources adequate to provide any increased service demands resulting from the coal development project?
- * Are existing facilities and equipment adequate to provide any increased service demands?
- * If not, what are the projected manpower, facilities and equipment requirements?
- * What changes in organizational structure and management practices will be required, if any, to meet future service demands?

Other concerns of equal importance related to current operations were also expressed. Among them were:

- * Are existing manpower resources being utilized optimally?
- * Are current management practices in keeping with modern concepts and theories?

- * Is the existing organizational structure appropriate and logically designed?
- * Are the existing operations carried off effectively and efficiently?

The purpose of the technical assistance was to provide a general assessment of the organization, management, and manpower of the NDHP. Specifically, the study would provide answers to the questions cited above and offer recommendations for organizational, management, and operational improvement as warranted.

III. ANALYSIS OF THE PROBLEM

Historical Background

The North Dakota Highway Patrol was created in 1935 by act of the Twenty-fourth session of Legislative Assembly of the State of North Dakota. The act authorized the State Highway Commissioner, with the consent of the Governor, authority to appoint a State Highway Patrol Superintendent, and Assistant Superintendent. The first five State Highway patrolmen were appointed in 1936. The NDHP has grown steadily since that time.

Today, the North Dakota Highway Patrol serves an estimated statewide population of approximately 680,000 persons in a 70,655 square mile area and patrols more than 105,000 miles of public highways. The NDHP is headquartered in the North Dakota State Capitol Building in Bismarck with offices located on the ground floor. A more detailed discussion of headquarter's facilities will appear later in this report.

Duties and Responsibilities of the Highway Patrol

The specific duties of the Patrol under the 1935 legislation were to enforce the provisions of the laws of the State of North Dakota relating to the protection and use of the public highways in the state, and the operation of motor and other vehicles upon said highways. Highway Patrolmen were vested with all the powers and duties of peace officers in the State of North Dakota and their jurisdiction extended throughout the State.

As the size of the patrol increased over the years, so has its duties. Today, the duties and responsibilities of the NDHP include the following:

1. General police powers on highways and specific responsibility for the enforcement of the provisions of Title 39 and those sections of Title 24 of the North Dakota State Code that pertain directly to highways.
2. Making arrests on view and without warrant for violations of Title 39 and 24.
3. Directing traffic.
4. Inspecting vehicles, registration and operators licenses.
5. Locating stolen vehicles; and inspecting any vehicle in any public garage or shop.
6. Serving warrants.
7. Investigating traffic accidents.
8. Investigating thefts of motor vehicles.
9. Taking applications for operators licenses.
10. Enforce all laws, rules and regulations related to the closing hours of establishments selling liquor or alcoholic beverages outside the limits of incorporated cities and villages within the State.
11. Serving as peace officers for enforcing the provisions of the code at all state charitable and penal institutions and on the state capitol grounds, or other state-owned properties.

Additionally, the Highway Patrol is responsible for such non-traffic related activities as (1) the investigation of aircraft accidents and protection crash sites, (2) Civil Defense, and (3) such other special assignments as designated by the State legislature.

Current Organization Structure

A number of factors must be considered in determining the appropriate structure of an organization. Among them are: agency goals and objectives, available resources, functions to be performed, clientele, time of performance, and geographic area to be served. Traditional organization theory has placed heavy emphasis upon these factors as well as upon certain "principles" which have been considered essential to effective agency performance. These principles include:

- (1) grouping of like functions
- (2) unity of command
- (3) staff-line relationships
- (4) span of control
- (5) preserving authority commensurate with responsibility.

To a large extent, the North Dakota Highway Patrol has been organized according to the basic concepts and principles of organization theory. In February, 1976, the NDHP was observed to be organized as is shown in Chart 1. As depicted, it is evident that the NDHP is organized in varying degrees according to: (1) functions to be performed, (2) time of day during which the function is to be performed, (3) clientele for whom the function is to be performed, and (4) geographic location at which functions are to be performed.

As currently organized, the NDHP consists of a Superintendent; Assistant Superintendent; four staff units: Training, Personnel and Property, Finance, and Safety and Vehicle Inspection; and Operations: eight territorial districts responsible for field operations. The duties and responsibilities of each of these operational units is adequately defined either in the rules and regulations manual or by some administrative directive. Therefore, further discussion of areas of responsibility is not necessary here.

Organizational Improvement Needed

Even though the organization of the NDHP adheres for the most part to the basic principles of organization theory, there are, nevertheless, several organizational changes that can be made to improve the agency's overall effectiveness and efficiency.

The proposed changes in the organizational structure of the NDHP are illustrated in Chart II. This proposed reorganization accomplishes the following:

1. assembles activities of a support or administrative nature together into a more readily managed group of functions and is called the Administrative Services Bureau
2. calls for a grouping of field operations into a specific bureau, as now, but sets out the four western and four eastern districts under specific commanders recommended to be captains. This arrangement should help to more closely control and fully unify the most isolated field posts with the urban districts

3. makes the entire Department more cohesive, establishes more clearly set out lines of responsibility, and enhances informational and policy flow
4. provides needed administrative support to the Superintendent by establishing within his office an Administrative Assistant position staffed with a lieutenant and a Fiscal Affairs coordinator position staffed by a civilian; and creates a Research and Development unit, an Internal Security and Inspections unit, a Property and Fleet Management unit within the Administrative Services Bureau.

Also, the training unit has been combined with the personnel function since these two functions basically go hand in hand, Safety and Vehicle Inspections are consolidated; and finally Records and Data Processing are grouped as one unit. It is suggested that the commanders of the Training and Personnel unit and the Safety and Inspections units be captain. These suggestions will be reflected in the final staffing recommendations.

The primary emphasis here is on restructuring the department for purposes of facilitating better management, coordination and control, and communication. The established duties and responsibilities of individuals and functional units have not been altered but rather combined, with the exception of the newly created units. It has not been suggested that the Department's program of services be changed since these are mandated by the State legislature and existing State codes.

The duties and responsibilities for the Research and Development unit and the Administrative Assistant to the Superintendent should be amplified here since they are new and to be formalized as independent functional activities under the reorganization.

The Research and Development unit might be placed under the direction of a civilian, some one knowledgeable with social research methodology and computers. The primary duties and responsibilities of this unit should include:

- (1) preparing and keeping current a departmental five-year plan
- (2) conducting special research projects and analyses of operations
- (3) provide on-going assessment of field workloads and patrol needs
- (4) responsibility for grants coordination
- (5) liaison with the State Law Enforcement Council
- (6) keeping current the rules and regulations, procedures manuals, directives and orders, position classifications, and the like.

The Administrative Assistant to the Superintendent should generally assist the Superintendent by handling routine day-to-day administrative tasks now consuming much of the Superintendent's time. Specific duties and responsibilities for this position should be the prerogative of the Superintendent. Therefore, he should delineate the specific duties and responsibilities of the position.

Current Staffing Practices

The North Dakota Highway Patrol is currently authorized 95 sworn and 21-1/2 civilian personnel. Agency personnel are allocated and deployed as shown in Table 1.

Administration

Some concern was expressed over the possibility of the agency being top heavy administratively. The study team found no evidence of this. To the contrary, the study team is of the opinion that additional administrative assistance is in order and has recommended the addition of an administrative assistant to the Office of Superintendent. The basis for this opinion stems from the fact that of the 95 sworn personnel currently authorized, only 6 or 6.3% are assigned to headquarters for administrative and support purposes. Three of these positions are executive level officers: the Superintendent, Assistant Superintendent, and Operations Officer. The other three positions are essentially support functions, e.g.: Training Officer, Personnel and Property Officer, and Safety and Vehicle Inspections Officer. Similar organizations are known to assign between 10 to 20 per cent of their total personnel to perform administrative and staff functions. In comparison, the NDHP appears to be frugal in staffing its administrative operations, especially when you consider that the operation of the training academy is included among these functions.

Table 1

(A)

Current Staffing of
The North Dakota Highway Patrol

February, 1976

SWORN PERSONNEL

<u>Rank/Position</u>	<u>Number</u>	<u>Assignment</u>
Colonel	1	Headquarters
Lt. Col.	1	Headquarters
Major	1	Headquarters
Captains	8	District Offices
Lieutenants	4	3 at Headquarters; 1 at Training Academy
Sergeants	10	(One of whom is paid as a Lieutenant because he is the pilot). <u>He works out of Headquarters.</u>
Troopers	<u>70</u>	
<u>Total</u>	<u>95</u>	

CIVILIAN PERSONNEL

Table 1 - (B)

<u>Rank/Position</u>	<u>Number</u>	<u>Assignment</u>
Clerk/Typist	13	8 assigned to the Field (1 to each district office) 5 assigned to Headquarters
Data Processing Coordinator	1	Headquarters
Secretary I	1	Headquarters (Safety Director)
Secretary II	1	Headquarters (Assistant Superintendent)
Secretary III	1	Headquarters (Superintendent)
Cook I	1	Training Academy
Cook II	1	Training Academy
Account Technician	1	Headquarters
Accountant II	1	Headquarters
Custodian	<u>1/2</u>	Training Academy
<u>Total</u>	<u>21-1/2</u>	

Operations

Approximately 89 of the department's 95 sworn personnel are allocated to Field Operations and are assigned to the eight geographic districts throughout the State. The department's pilot is included in this figure. When not in flight status, the pilot works a routine patrol assignment in the Bismarck District.

The boundaries of the 8 districts are mandated by State Executive Order which sets the boundaries for all State agency operations.

It is the current practice of the NDHP to assign manpower proportionate to the services demands as determined through analyses of workload data. This method of allocating resources is in keeping with current and accepted practices. Current staffing within the eight districts is as illustrated on Table 2.

Each patrol officer is permanently assigned to a district and is scheduled daily, to one of 5 basic shifts:

- Schedule A = 6 a.m. - 3 p.m. (0600-1500)
- " B = 9 a.m. - 6 p.m. (0900-1800)
- " C = 1 p.m. - 10 p.m. (1300-2200)
- " D = 5 p.m. - 2 a.m. (1700-0200)
- " E = 6 p.m. - 3 a.m. (1800-0300)

The length of each tour of duty is 8 hours (1 hour off for meals) excluding any required overtime. Officers work a basic 5-day, 40-hour work week.

Table 2

Staffing Patterns for the Eight Districts

February, 1976

District Number	I	II	III	IV (Fargo)	V	VI	VII (Bismarck)	VIII	<u>Total</u>
Captain	1	1	1	1	1	1	1	1	8
Lieutenant							1		1
Sergeant	1	1	1	1	2	1	2 ^{1/}	1	10
Trooper	5	10	6	11	10	10	12	6	70
	7	12	8	13	13	12	16	8	89
	=	=	=	=	=	=	=	=	
Clerk-Typists	1	1	1	1	1	1	1	1	8

1/ Includes the department's pilot.

Management Practices

Management has been traditionally defined as the art and science of accomplishing work tasks through people. The management process is a complex one. It essentially involves the ordering and controlling of human and material resources and accomplishing established organizational goals and purposes. In this context, the management processes affects every component part of an organization.

This section of the report examines the several areas of management related to the responsibilities of the Superintendent of the North Dakota Highway Patrol in defining and attaining the department's goals and objectives. These areas include executive direction, leadership, planning, internal control practices, and inspections.

Executive Direction

Executive direction is provided by the Superintendent, a Colonel, who commands the department. The Superintendent is the ranking member of the agency. He is appointed by and serves at the pleasure of the Governor. As a state department head, the Superintendent is responsible for a wide range of duties and responsibilities including planning, organizing, coordinating, budgeting, internal control, policy-making, and implementing the directives of the State Legislature. He is responsible for the enforcement of state and federal statutes pertaining to the duties and responsibilities of the highway patrol.

Many of these responsibilities are met through delegation of authority and responsibility to various command officers. The Superintendent, however, exercises general supervision over all persons performing these delegated tasks. As executive officer of the agency the Superintendent must deal with conflict problems on a day-to-day basis; he must plan in-depth and on a long range basis for a solution of a variety of problems, many of which are not clearly in focus. He authorizes substantial expenditures. The manner in which the people under his direction perform has a direct or indirect influence on the quality of services provided the citizens of the State of North Dakota.

No single individual contributes more to the tone of the organization than does the Superintendent. In so doing, the Superintendent must fill three basic roles:

1. He must perform competently the executive function,
2. He must be a capable commanding officer, and
3. He must provide competent leadership.

Further, the Superintendent must serve as a community catalyst. In this role, he must represent the department in complex relationships with other governmental agencies and business officials and with diverse community groups and individuals.

It is the considered opinion of the study team that the Superintendent provides both adequate and competent executive direction to the North Dakota Highway Patrol at this time. However, with the anticipated growth of the NDHP, the Superintendent can utilize profitably the services of additional support personnel such as those identified in the section of this report on organizational needs. The addition of these personnel would enable him to concentrate exclusively on essential executive management activities.

Management Information

Management, planning, decision-making, evaluation, and control are most successful when based upon data supplied by a well-planned and carefully administered management information system. The production of timely, accurate, and relevant data that can be used for managerial purposes is generally available to the NDHP. Data currently used for management purposes are essentially derived from traffic accident reports and individual officer's reports of activity. The system of reporting and retrieving the information is automated. A few examples of the kinds of useful information available to the patrol include: workload statistics by geographical location and time of day; recorded time committed to performing all services; traffic accident information; individual personnel and payroll records; and the like.

There is a direct relationship between the existence of data and information systems and the quality of the agencies management. Those elements of the management information system for which the NDHP has direct responsibility appear to be functioning properly and to be resulting in, both qualitatively and quantitatively, adequate usable information. Some problems have been experienced in situations where the NDHP relies on other governmental agencies to provide basic, but critical management information. The problem stems from the fact that information is often not received in a timely manner. This problem has a direct bearing on the ability of the NDHP to respond effectively to certain aspects of its planning process.

In the attempt to alleviate this problem, members of the study team met with representatives from the State Department of Highways to explore ways in which the patrol might receive traffic accident information from the Highway Department in a more timely manner. As a result of this meeting the

Superintendent of the Highway Patrol and appropriate members of the Highway Department scheduled a meeting for the purpose of resolving this problem. In order to prevent similar problems from re-occurring in the future, it is suggested that the NDHP appoint a Liaison officer to meet periodically with key persons of other State agencies having responsibility with the collection and dissemination of statistical data used by the NDHP.

Planning

The North Dakota Highway Patrol does not have the planning unit formally placed in its organizational structure. Planning is essential to any organization that expects to meet effectively the demands of a dynamic society. Planning is also necessary in the development of internal organizational practices and procedures and for their successful implementation and continuing evaluation. Although some planning activities will always be the responsibility of operating personnel, the prime responsibility should be centralized. Moreover, to be effective, the planning function must be integrated into the department's decision-making process and be undertaken in an objective and analytical manner.

Planning is considered to be the most basic of all management functions since it involves selection from among alternative courses of action for the organization as a whole and for every sub-unit and person therein. Koontz and O'Donnell list four reasons for the paramount importance of planning:

- (1) to offset uncertainty about change
- (2) to focus attention on objectives
- (3) to gain economical operation, and
- (4) to facilitate control.

The study team recommends that the NDHP organize a planning unit, to be called the Research and Development Division. It should be placed in the Administrative Services Bureau. To be successful, the Research and Development Division should meet two basic criteria:

- (1) it should maintain a close relationship with the Superintendent, and
- (2) its personnel should combine training and experience in research methods, systems analysis, management sciences, data processing, budgeting, public administration, and traffic engineering.

The Research and Development Division would be responsible for the constant evaluation and updating of the objectives and operations of the department with a view toward maintaining it as a modern and forward thinking organization. The Research and Development Division would assist the department in evaluating and testing various theories and concepts intended to promote professionalism and efficiency. The results of research would be translated into both positive and negative aspects of proposed changes and would be reported to the Superintendent and other executive officers to assist in their evaluation and aid in the decision-making process.

Typical functions to be performed by the Research and Development Division include:

- * to evaluate and test proposed progressive traffic enforcement theories and concepts.
- * to review and revise the orders, policies, and manuals of the department.

- * to evaluate employees suggestions.
- * to conduct surveys and workload studies.
- * to analyze statistical reports and various traffic enforcement proposals.
- * to conduct feasibility studies on proposed operational changes.
- * to respond to inquiries from outside agencies requesting information on enforcement and programs and policies on virtually any subject.
- * to prepare and administer federal grants.
- * to obtain information and statistical data and prepare formal reports for the use and convenience of department personnel.

Internal Control Practices

Control of personnel and programs is a major management responsibility in any organization. There are several basic mechanisms of control among which are:

- (1) the promulgation of written directives to guide and constrain operational activities;
- (2) the preparation of a budget which serves as a statement of priorities for the upcoming year; and
- (3) inspections.

These three mechanisms are discussed briefly in the following paragraphs.

Rules, Regulations, and Written Directives

Every organization should have some written guides if it is to function effectively. To this end, the North Dakota Highway Patrol has developed, published, and distributed copies of a rules and regulations manual to all members of the patrol. The manual is a 5-1/2 by 8-1/2 spiral bound collection of written rules and regulations, policies, and procedures. It contains twelve chapters with specifically numbered sections, and a table of contents. The manual was formally adopted September 1, 1974 and rescinds all previously published department rules and regulations and therefore is the department's current controlling document.^{1/}

The manual details the essential functions and responsibilities attached to the various sworn positions of the department. It comprehends both general ranks such as patrolman, sergeant, and the like; as well as, specific assignments, such as safety director, training officer, operations officer, etc. In addition, the manual covers the functions and responsibilities of civilian employees of the department.

The rules and regulations manual of the North Dakota Highway Patrol is considered adequate both in format and content. Further, the manual appears to meet the current needs of the patrol. There are no recommendations for improvement upon the manual; however, as recommended in a previous section of this report the responsibility for review and updating should be fixed with the research and development division when it is established.

1/

At the time of this writing, it was believed that the manual referenced was the controlling document. It was brought to our attention that a new rules and regulations manual has been adopted which supercedes the 1974 document.

Fiscal Control

Effective management of the fiscal affairs of a complex governmental agency, such as the North Dakota Highway Patrol, requires adequate accounting records, proper budgetary procedures, good internal audit practices, defined and documented financial procedures and all the other components of a well-balanced system of financial control. The Superintendent must have adequate financial information to properly allocate limited resources and for making operational decisions.

Budget development, execution, and analysis are an integral part of the management function. Internal controls assure both the administrator and the public that limited financial resources are being expended within an adequately defined system and that the agency is able to account for property in its custody. The fact that operating funds are limited emphasizes the importance of the internal budgeting process, since it is during the development of the budget that fundamental decisions are made about the kinds and levels of services that will be provided. Thus, the budget is ideally a planning document which states the organization's goals and how they will be attained.

Since a State audit of the financial procedures of the NDHP was in process during the time the study team visited NDHP headquarters, little more than a cursory review was given to this area. The Superintendent expressed concern about a real or potential problem in the area of property control. He indicated that the procedures related thereto were currently under review by his staff and that if there should be a need for improvement in this area, procedures would be modified accordingly.

Inspections

Inspections are a form of administrative control and coordination vital to the effective management of an organization and in identifying and correcting deficiencies in the performance of either individuals or the department. The inspection process is not a mechanism for "spying" on personnel, nor is it motivated by a desire to "keep people on their toes". Rather, it is a program of providing support and assistance to the various elements of the organization in identifying weaknesses so that they can be corrected.

The study team developed a strong sense, though not confirmed, that field inspections by headquarters staff was conducted on an irregular, if not ad hoc, basis. If so, this would be a weakness.

It is suggested that the inspections role within the organization be strengthened. The inspections role should be expanded as the size of the organization increases. An individual of the rank of lieutenant or higher should be assigned full-time staff responsibility for the purpose of assisting the Superintendent with staff inspections. In addition, all headquarters Administrative Services Bureau ranking officers should assist in the inspections function by getting out and around often, and on an unannounced basis, at all hours and on any day. Intensifying this process should help notably in assuring that execution is consistent with policy and directive, that all eight districts are performing in essentially similar fashion, and allow stronger control of the force. Inspections will assume greater import as the numerical strength grows, and will be crucial to keeping an already highly decentralized force unified and morale high.

Staff personnel may early detect incipient problems and trouble shoot more effectively. They will be of far more value in the weekly headquarters staff meetings and monthly meetings in Bismarck with district commanders as a result.

The Highway Patrol's aircraft may be used more effectively as a conveyance with the pilot assigned to the Inspections unit. This should be given consideration.

Implementing a comprehensive inspections program under one officer will bring the Highway Patrol into line with an important provision set out by the National Advisory Commission on Criminal Justice Standards and Goals (standard 2.3, pages 57-59).

Internal Discipline

The detection, investigation, and adjudication of employee misconduct is of paramount importance in gaining and maintaining public confidence and support. Accordingly, a sound and viable system of internal discipline is essential to a public safety organization. The components of such a system should include:

- (1) a uniform and orderly process for detection, investigation, and the adjudication of incidents of employee misconduct;
- (2) a system of receiving and processing complaints against employees;
- (3) the preparation and maintenance of statistical summaries available to the public, documenting the number and nature of complaints received and dispositions;
- (4) a realistic set of punitive sanctions available to the administrator to impose upon employees found guilty of misconduct;

- (5) an appellate process whereby the actions taken by the administrator may be reviewed by higher authority, when appropriate; and
- (6) provisions for safeguarding the rights of employees who are charged with committing wrongful acts.

It was observed by the study team that only four or five complaints of any significance were ever called to the attention of the Superintendent. Current policy calls for the investigation of these complaints of employee misconduct to be performed by the Lieutenant Colonel. The Superintendent pointed out that lesser complaints are handled by the district captains and that if a report is required, one is filed in the officer's personnel jacket after review by headquarters.

The study team concluded that the existing system of processing complaints against officers is an informal one. It is essential that formal mechanisms for internal investigations be established. This not only assures employees of uniform treatment, but it also establishes in the eyes of the public the agencies commitment to the highest standards of individual integrity and professional performance.

The process should be formalized, controlled, and assigned to someone not directly responsible for the supervision of the subject involved. Complaints against personnel should be analyzed periodically to pick up any training gaps, supervisory weaknesses, possible breaches of integrity, or chronically named officers. Such an analysis should indicate whether processes need sharpening, personnel retrained or reassigned; or that problems involving latent alcohol or mental illness exist and that certain kinds of remedial programs need to be devised. By formalizing this process, the North Dakota

Highway Patrol will be in compliance with the internal discipline standards set forth in the National Advisory Commission on Criminal Justice Standards and Goals report on the police. Specific recommendations concerning internal investigations may be found in chapter nineteen, pages 469 through 495 of that report.

Training

The need for adequate training is readily apparent and therefore a case for a sound training program need not be made here. The paragraphs that follow identify and discuss those areas of the NDHP training program in which improvements should be made to strengthen the agencies overall training program.

Training Program Needs

The NDHP recruit and in-service training programs are admirable and warrant commendation and continuation. These are significant strengths of the department and have done much to help the force maintain a high level of professional competence.

Recruit Training

The basic NDHP recruit training course consists of 20 weeks of classroom training, an additional week in a Breathalyzer course, and four weeks of on-the-job training: one week in each of four districts under different supervisors. The program as structured is considered adequate.

Law enforcement officers from other jurisdictions, Sheriffs deputies and Police, are provided only a five-week, 200-hour basic recruit training course. This element of the Academy's program is not considered adequate because it does not meet the recommended minimum standards set by the President's Crime Commission in 1967 and underscored in 1973 by the Advisory Commission on Criminal Justice Standards and Goals. Every effort should be made to expand the Non-Highway Patrol recruit training program. This should be accomplished through consultation with the State Law Enforcement Council, Chiefs and Sheriffs Associations, and the Highway Patrol Academy Staff to ensure curriculum, facilities and instructional staff adequacy.^{2/}

In-Service Training

There are a number of in-service training courses offered at the Academy available to personnel of the Highway Patrol and other law enforcement agencies. The duration of these courses range anywhere from two days to four weeks. During 1975, approximately 5,678 man-days of training were provided to 602 students. In addition to the Academy courses, personnel of the Highway Patrol are sent to special technical courses such as those offered at the Northwestern traffic institute. This element of the program is very strong and should be maintained at the current level.

^{2/}

Course revision and expansion of the Police and Sheriff's Basic Training Program are being considered for implementation by FY 1976-77.

Supervisory and Management Training

All Sergeants are required to complete a 2-week supervisors training course within one year following promotion. This training is usually supplemented with the Northwestern University, Technical Traffic Accident Investigation and Traffic Law Enforcement Courses.

In addition to the supervisory training, a Police Management course is offered in 3 one-week phases that is designed for training supervisory and middle-management officers. The sequel to the Police Management course is a course entitled "Executive Development". It is designed to instruct middle management and executive level officers in the elements of advanced management and administration. It is expected that the course will soon be offered in 3 one-week phase as is the Police Management course.

Training Schedule Development and Program Staffing

A tentative training schedule is prepared by the Training Director in consultation with the Superintendent for the coming year. The tentative schedule is distributed to key Highway Patrol Staff, the State Law Enforcement Council, the State Training Council and selected Sheriffs and Chiefs for review and comments. This process assures a realistic and meaningful program of training in meeting state-wide law enforcement needs.

There are about five weeks over the year that the Academy training center is closed. For example, Thanksgiving, Christmas, the Fourth of July, and like periods. There are a few occasions when courses are under-enrolled and require cancellation. They are usually rescheduled for a later time.

Training staff come from a number of sources including the NDHP, FBI, local Police and Sheriff Departments, Attorneys, university professors, etc. This system of obtaining instructors works very well and should be continued.

Curriculum Development and Program Evaluation

Another feature which would strengthen both the Highway Patrol and statewide training programs would be the addition of a curriculum specialist-program evaluator to the center for, say, a year of intensive work. This person, who should be a non-police associated individual, fully independent of any department ties, could be funded with Law Enforcement Council monies. His mission would be to conduct a comprehensive curriculum review and develop proposals for curriculum revision, as well as, to evaluate the effectiveness of each course through, among other techniques, both pre- and post-testing of participants. Arrangements for a curriculum specialist-evaluator may be made through the College of Education at a major North Dakota college or university.

Other Concerns

Finally, there is reason to have every recruit while in school wear a nameplate similar in size and visibility to ones common to the U.S. military services. Moreover, it may help the public more readily identify with troopers if every sworn member wore a nameplate, too. This practice is common in many departments.

Training Facility Needs

The NDHP is fortunate to have a new training academy facility. The facility is located in Bismarck on the campus of the Bismarck Junior College. In most respects, the facility is adequate for meeting current and future needs. There are, however, a few areas in which the study team observed several deficiencies to exist:

- * The training academy is in dire need of a defensive driving track and skid pad. Such a facility could be used not only for police training statewide, but also for the training of other emergency operations such as fire and ambulance service. The facility could also be used year round to simulate seasonal weather conditions, and of course, for re-training purposes.

The NDHP currently utilizes driver training simulators at Dickinson High School located 100 miles west of Bismarck. Occasionally, recruits are taken to Arden Hills, Minnesota, (over 300 miles away) to the Minnesota Highway Patrol Academy for actual practice on a track and skid pad.

- * There should be a wing constructed in which to house female recruit officers. This construction might best be added to the Southern portion of the facility. The addition might also include another classroom, a weapons and ammunition vault, more storage space, and an indoor pistol range.

At present female recruits are housed in hotels. This not only affects an added expense but is an inconvenience and a source of complaint about differential treatment.

- * The Academy Mess-Galley. There is need for additional kitchen shelving and a foods store room. From an organizational and management standpoint, the duties of the Training Director should be expanded to include supervision of the Galley and its staff and, maintaining an inventory of food stuffs (stores) and miscellaneous supplies.

Providing the facility improvements discussed above would do much to enhance the overall effectiveness of the NDHP training program and in the long term prove to be more cost-effective.

Personnel Management Practices

Personnel administration is a significantly complex and time-consuming aspect of the overall management of an organization. It is, therefore, appropriate that responsibility for matters related to personnel administration be delegated to one specific individual or unit (as is

presently the case in the NDHP).

Personnel administration in the North Dakota Highway Patrol is the primary responsibility of the Superintendent. The responsibility for the day-to-day administration of the system has been recently delegated to the Personnel and Property officer, but was previously the responsibility of the Assistant Superintendent.

The rules and regulations governing the administration of the department's personnel system are basically derived from chapters 39 and 54 of the North Dakota Century Code and the various sections thereof; and, from several sections of the North Dakota Highway Patrol Manual of Rules and Regulations, specifically, sections IV and XII. Moreover, the administration of the department's personnel system is subject to review by the North Dakota Merit System Council.

The department's personnel system is comprehensive and administered well. There are several elements of the system that could, however, be improved. These are discussed in the paragraphs that follow.

Compensation Practices

Based on an analysis of pay data obtained from the Fraternal Order of Police, National Lodge pay and fringe benefit survey of March 15, 1975, it appears that salaries for patrolmen are generally competitive as compared with other State Police or Highway Patrols of the North Central area. However, when compared with the two largest police departments in North Dakota: Grand Forks and Fargo, salaries are somewhat low, especially in view of the educational requirements of the patrol for entry into service.

On the other hand, salaries for executive level officers are significantly lower than for other like jurisdictions. For example, the Superintendent when compared with Superintendents of selected Highway Patrols (Wyoming, Minnesota, and Utah) is better than 15 per cent below the average maximum wage. Salary adjustments are warranted.

Serious consideration should be given to bringing the wages and fringe benefits for all officers of the department up to parity with those law enforcement agencies that might serve to attract personnel away from the department. The loss of each man costs the department thousands of dollars in training costs for both the person lost and for his replacement. A re-assessment of pay and fringe benefits offered employees should be a priority item. The NDHP must not serve as a training ground for other law enforcement agencies.

Use of Civilians

The department is currently making use of civilians in staffing certain functions. Though not a priority matter, there is room for further movement in this direction. The Director of Research and Development (and perhaps the staff, too), the Records and Data Processing Supervisor (as is now the case), and the Fiscal Affairs Director could be civilians. There could be a civilian training curriculum and evaluation specialist placed in training; the Superintendent's administrative assistant could be civilian, too; and a journalist could serve full-time in the Safety and Inspections Division to turn out copy. Finally, there may be a case for civilians in the vehicle inspection program, provided roles there assume full-time dimension. There are significant savings in dollars spent on personal services as a result of expanding the use of civilian employees.

Inter-Local Governmental Agreement

In light of the Highway Patrol's outstanding leadership in the training of peace officers throughout the state, questions arise from time to time regarding the appropriateness of extending this leadership to the provision of law enforcement services. The provision of law enforcement services outside the realm of responsibilities mandated by the legislature and state codes would necessarily require a formal agreement between governmental entities concerned.

It appears that Chapter 54-40-08 of the North Dakota Statutes would not preclude a county or city from reaching a joint exercise of governmental powers agreement with the North Dakota Highway Patrol. An Attorney General's opinion may be necessary to clarify the question. However, it appears that there is no permissive latitude in Chapter 39-03-09, which sets out the powers of the Highway Patrol, to allow the Highway Patrol to consummate an interlocal governmental agreement. So, if there is to be an additional option open to counties or cities who wish to contract for specific Highway Patrol Police services, the powers section should be broadened to permit reaching accords with these levels of government.

Such a permissive section would be appropriate to pass. It would be fully consistent with modern trends and in accord with recommendations set out in 1967 by the President's Commission on Law Enforcement and Administration of Justice as well as with the 1973 standards set by the National Advisory Commission on Criminal Justice Standards and Goals.

Several North Dakota cities and counties are already contracting with each other for specific police services and there are really nothing

more than artificial reasons why counties or cities should be denied the opportunity to negotiate a policing contract with the Highway Patrol. The decision, however, to provide the necessary enabling legislation rests with the State Legislature and the political processes thereof.

Facilities and Equipment

Facilities

The Headquarters Office of the North Dakota Highway Patrol is located on the ground floor of the State Capitol Building. The State Capitol building is a magnificent structure, ornately decorated with fine woods, exotic marbles, and brass. The offices assigned the Highway Patrol, however, are not adequate in terms of space needs and the lay-out of offices is not conducive to the most effective management and coordination of operations. There should be a re-assessment of office space requirements conducted by a competent space utilization planner. Moreover, serious consideration should be given to the long-range needs of the Patrol; an entire floor of the Capitol building or other suitable State office building may be required to effectively house the Highway Patrol headquarters operation in the not-too-distant future.

The offices of the District Headquarters were not inspected as this was not within the purview of this study. It was reported, however, that these facilities are generally adequate for current staffing.

The re-assessment of office requirements and the functional allocation of space, as well as office security should be routinely re-assessed periodically. This would be an appropriate responsibility for the proposed Research and Development Division.

Equipment

Little time was spent reviewing and assessing the quantity and quality of the department's equipment. Only a cursory examination was possible during the time available. Nevertheless, the team was able to determine that, in general, equipment: vehicles, armament, personal equipment--uniforms, and other such equipment, is adequate and is routinely maintained. There is one exception. The exception being that of portable radios.

Each Field Operations Bureau member, irrespective of rank, and selected Administrative Services Bureau personnel, should be equipped with a portable transistorized transmitting-receiving radios. Field personnel should carry them routinely while on duty and support personnel when away from Headquarters. These radios will not only extend each person's operational range by keeping him in constant contact with headquarters, but they also introduce an important safety increment for each officer, too. This is especially so when making traffic stops, approaching suspicious cars or people, and so forth.

Before radios are purchased, their utility must be specifically evaluated against the engineering aspects of the new State public safety radio equipment. Present assurances are that the portable sets will be effective, but this must be confirmed.

Communications

Communications are provided statewide by a State financed communications center. Some police departments, however, have their own radio frequencies to handle local radio traffic. The center is located in Bismarck and is housed underground in a modern fall-out shelter. The facility is well-equipped

with the following systems and equipment:

- (1) Radio/dispatch equipment--statewide capability
- (2) Teletype network
- (3) Reportedly, the State's only NCIC terminal
- (4) Statewide ambulance and wrecker dispatch capability
- (5) On-line weather reports from National Weather Bureaus
- (6) Emergency location files on every police officer in the State
- (7) Vehicle registration, drivers license, and vehicle want or stolen information
- (8) A closed circuit television system that provides security to the Center's entrances and parking lot.

The Center is staffed with three dispatchers and a Supervisor for each tour of duty. The Center's performance was generally regarded as highly satisfactory by those persons interviewed.

Current services provided by the Center should be adequate to handle any increased radio traffic generated by the NDHP over the next five years.

Manpower Requirements

Two primary issues must be resolved when considering manpower levels for any Public Safety Agency. The first is the determination of how many officers are required to provide adequate, requisite services. The second is to ensure the most effective use of those personnel.

There are no standards for optimum staffing for jurisdictions of various sizes, and no precise formula is available for determining exact personnel needs. Despite the fact that ratios of police and other public safety personnel to units of population are often quoted, these are not recommended levels of staffing. They merely reflect the existing levels in various jurisdictions. It is not possible, then, to compare North Dakota's complement of highway patrolmen with that of any other state and arrive at a meaningful conclusion. Rather, it is necessary to determine workload demands in North Dakota and whether the current number of officers is able to handle that workload adequately.

There are a number of formulas applied by police and other public safety agencies to determine how many officers are required to provide a specified level of services and further, to indicate how these officers should be assigned, both temporally and geographically. The discussion here will be limited to determining the minimum number of officers required to handle existing and projected workload requirements. The deployment of personnel temporally and geographically is a somewhat mechanical process that can easily be accomplished by highway patrol staff currently responsible for scheduling of personnel. A methodology for this purpose is cited in "Police Administration", O. W. Wilson and Roy C. McLaren, 3rd edition, McGraw + Hill, Inc., 1973.

Workload Levels and Statistics

Table 3 summarizes the activities and services performed by the NDHP during the years 1972-75. Table 4 shows the numbers of hours spent in performing the activities in Table 3. The data displayed were obtained from the Department's Annual Report of Activities for the years indicated.

Table 3

SUMMARY OF ACTIVITIES AND SERVICESNorth Dakota Highway Patrol1972 - 1974

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
<u>I. Traffic Activities</u>				
1. No. of Accidents Investigated	3,194	2,698	2,731	2,770
2. No. of Accidents in which Arrests were made	1,889	1,636	1,660	1,646
3. Hazardous Violation Arrests	9,924	10,239	14,291	17,437
4. Non-Hazardous Violation Arrests	3,868	4,197	3,919	3,414
5. Total Traffic Arrests	13,792	14,436	18,210	20,851
6. Hazardous Violation Warnings	16,511	17,124	17,838	16,660
7. Non-Hazardous Violation Warnings	15,401	16,368	14,450	12,796
8. Total Traffic Warnings (Written)	31,912	33,492	32,288	29,456
9. Total Arrests and Warnings	45,704	47,928	50,498	50,307
<u>II. Non-Traffic Activities</u>				
1. No. of Criminal Investigations	461	284	478	413
2. No. of Criminal Arrests	95	86	993	1,101
3. No. of Bars Closed	14	19	18	7
4. No. of Non-Traffic Special Details	2,062	1,880	1,914	1,460
5. No. of Driver Examinations Given	29,051	28,965	32,664	32,290
6. No. of Driver Licenses and Permits Picked Up for Safety Responsibility	---	6,716	8,007	8,621
7. No. of Safety Responsibility Activities	1,181	1,252	979	303
8. Public Service Activities - Form 321	3,301	3,668	3,120	2,343
9. Public Service Arrests	109	120	103	77
<u>III. Special Duties, Investigations, and Assistance (Number Only)</u>				
1. Assistance to Motorists	2,597	2,493	2,527	3,589
2. First Aid Treatment	72	50	68	66
3. Motor Vehicle Department	1,240	1,143	1,559	1,903
4. Mile Tax Collected	264	267	470	407
5. Assistance to Other Agencies	1,218	1,254	1,359	1,351
6. Assistance to Public Gatherings	6	9	12	8
7. Escorts	9	16	38	4
8. Warrants Served	13	9	19	35
9. Stolen Vehicles Recovered	29	39	48	55
10. Stolen Property Recovered	18	18	18	21
11. Value of Vehicles and Property Recovered	\$37,381	\$47,969	\$80,166	\$179,665
12. Transportation Provided	1,357	1,442	1,191	1,269
13. Equipment Weighed	5	10	9	4
14. Vehicles Impounded	78	63	74	52
15. Garages Checked for Damaged Vehicles	175	129	95	90
16. Assistance at Fires	18	28	25	15
17. Safety Films Shown and Safety Talks Given to Public	405	418	432	553
No. in				

Table 4

HOURS SPENT ON ACTIVITIES AND SERVICESNorth Dakota Highway Patrol1972 - 1974

	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
<u>I. Hours Spent on Traffic and Traffic Related Activities</u>				
1. Accidents Investigated at Scene	4,336	3,704	3,603	3,624
2. Accidents Investigation Follow-up	4,711	3,857	3,812	3,948
3. Other Traffic Investigations	650	594	674	804
4. Traffic Court	3,577	3,136	3,363	3,534
5. Report Writing	6,398	3,214	3,593	3,973
6. Patrol Enforcement	68,382	72,835	82,114	82,878
7. Escorts	44	28	75	40
8. Other Special Traffic Detail	2,200	1,827	2,565	3,218
9. Servicing	1,815	1,589	1,948	1,981
10. Office Detail	8,300	7,787	8,355	8,620
11. Supervision (Captains, Sergeants)	5,616	5,447	5,833	5,114
12. Traffic Safety Talks	498	560	745	631
Total Hours	106,527	104,578	116,680	118,365
<u>II. Hours Spent on Non-Traffic Activities</u>				
1. Criminal Investigations	483	935	1,051	897
2. Motor Vehicle	770	736	968	1,108
3. Non-Traffic Patrol	1,163	1,246	1,496	1,732
4. Non-Traffic Court	160	155	247	346
5. Non-Traffic Special Detail	5,704	5,137	6,248	6,541
6. Training	8,171	10,727	10,460	11,467
7. Non-Traffic Report Writing	593	547	766	641
8. Conducting Driver Examinations	10,119	11,191	12,060	12,048
9. Activities for Safety Responsibility Division	634	734	489	154
10. Public Service	145	306	320	210
Total Hours	27,942	31,714	34,105	35,143
<u>III. Total Hours on Duty</u>	135,635	136,519	150,784	153,503
<u>IV. Total Miles Patrolled</u>	2,230,915	2,265,694	2,334,200	2,266,707
<u>V. Total Interstate Hours</u>	1,435	3,489	7,296	8,827
<u>VI. Total State and Federal Hours</u>	58,976	59,547	64,688	63,842
<u>VII. Total County Road Hours</u>	5,392	5,452	5,748	5,817

18. High speed operation of vehicle	2,081	1,976	3,195	2,954
19. Force Used in Arrest	30	23	51	47
20. Firearm Used or Drawn	15	9	13	6
21. Assault of Officer	5	6	2	9

IV. Monies Collected

1. Motor Vehicle Department License Fees	\$10,277.35	\$ 9,594.64	\$16,663.35	\$24,639.90
2. Mile Tax Collected	1,709.26	2,237.36	5,094.00	4,305.00

The most striking observation made while analyzing these data was the fact that there were irregular increases and decreases in activity over the last four-year period and only in a few instances have clear trends been established. For example, "hazardous violation arrests" is the only sub-category under traffic activities (except for total traffic arrests) where there has been a steady increase over the four-year period. The other sub-categories have fluctuated from year-to-year. The same is true for non-traffic activities where only two sub-categories: criminal arrests and confiscation of licenses and permits have shown steady patterns of increases. On the other hand, several sub-categories under "Special Duties, Investigations, and Assistance" show significant increases. Overall, levels of activity have either increased or remained relatively stable throughout the four-year period.

Projected Workload Levels

Projecting workload levels is at best risky. There are so many unknown variables involved that accurate predictions are impossible. We can, however, make some general estimates of workload levels based on historical trends and known or anticipated variables expected to have an impact on activities.

Prior to 1975, traffic activities (excluding traffic accidents investigated) increased at an annual rate of approximately 5 per cent. However, traffic activities for 1975 increased by approximately .04 per cent and accidents investigated increased by 1.4 per cent for the same period. It would appear from an analysis of the data in Table 3 that one reason for the decline in activity is basically due to more time being spent on providing services rather than on enforcement activities. Another explanation might be

that more time is being spent responding to mandated responsibilities for which additional personnel have not been authorized; e.g., Capital Building and Governor Mansion Facilities Security, Bar Inspections, and the like.

Taking into consideration the additional responsibilities mandated by the legislature, increased vehicle transportation expected to result from the coal development projects, and anticipated population increases totaling an estimated 10,000 over the next 5 years, the study team envisions a minimum service level increase of from 7-10 per cent annually. The staffing requirement recommendations that follow take cognizance of these variables.

Recommended Staffing Levels

The survey team analyzed the wealth of data available in the department's reports entitled "Summary of Operations" and "Administrative Traffic Summary" for the years 1972-75 in an effort to determine manpower requirements. The process involved in the analysis is described as follows.

The analysis sought to determine the number of patrolmen needed to meet adequately current service demands and projected service demands through 1980.

The analysis starts with the assumption that the recent historical pattern of both the number of services demanded and the time required to meet these demands are the best indicators of future demands. Therefore, the survey team accumulated the complete data on all services provided for the years 1972-74 and the total time spent providing those services. Several calculations were made by incorporating these data into a formula used for determining staffing requirements; thus, resulting in recommended staffing levels.

The process and calculations used to determine current and projected manpower requirements appear in Table 5. Tables 6 and 7, respectively, show the average number of hours available annually for each officer and the "availability factor" used to define the total number of men required to staff one position 365 days a year.

On the basis of the calculations that appear in step 6 of Table 5, it is recommended that 39 additional Highway Patrolmen be added to the staff immediately and that additional patrolmen be added to the staff in accordance with the schedule also appearing in step 6. A summary of current and proposed staffing levels appear in Table 8.

A word of caution. As previously mentioned these recommended staff increases represent those required to handle field activities only. Also, the recommendations assume that the Highway Patrol's program of service will remain the same. Any additional responsibilities assigned to the patrol will require additional staff and equipment commensurate with the level of activity assigned.

Three additional points should be discussed relative to staffing requirements. First, any increases in field personnel will place additional burdens on existing clerical and support staff. Increases in these staff should be made accordingly. Second, as more troopers are selected, there will be an intensification of workloads at the training academy. The staff there should be "beefed up" as well, even if only on a temporary assignment basis. Third, additional supervisory personnel will eventually be required. The immediate increase of 39 patrolmen is not expected to require immediate supervisory personnel increases since less than 5 officers will be assigned to each district. This increase should not overburden existing supervision.

An example of a methodology used to determine workload and staff requirements and to determine cost-benefits is presented in the appendix to this report. This methodology is but one of several in use by Public Safety officials today. The one presented is designed for manual use, however, it can be adapted for computerization. It should be of some utility until a more in-depth and sophisticated system can be developed for use by the Department.

The research and development unit, when established, should review the various methodologies available--manual and computerized--and select one for routine use in the NDHP.

PROCESS FOR DETERMINING STAFFING REQUIREMENTS
BASED ON WORKLOAD AND ACTIVITY LEVELS

Step 1 Determine Volume of Community Generated Work Load Requiring Field Officer Response.

- * This requires definition of work load elements.
 - Called for services.
 - Arrests.
 - Reports written.
 - Court appearances.
 - Other.
- * Projections should include historical trends for each work load element in terms of volume and per cent change.
 - Previous periods (three to six years).
 - Reasons for trend patterns.

Step 2 Determine Volume of Field Officer Initiated Activities.
 (Repeat procedure outlined in Step 1.)

Step 3 Measure Average Time Required for Each Work Load Element.

- * Basic elements are as follows:
 - Calls-for-service. (Time officer receives call until back in service.)
 - Officer initiated cases. (Time required to process.)
 - Report writing.
 - = Narrative and major report form reports.
 - = Incident reports only.
 - = Traffic citations.
 - Moving.
 - Parking.

* Breakdown may be desired by specific elements

- Traffic accidents and investigations.
- Criminal investigations.
- Services.
- Others.

Step 4 Determine Number of Man-Hours Required for Work Load.

* Examples:

- Initial investigations.
- Service calls.
- Arrests.
- Report writing.

Step 5 Determine Manpower Availability

* Determine the average number of man-hours available for each officer.

- Gross man-hours less vacations, holidays, military leave, attrition, training, etc.
- Gross man-hours less non-operational time for roll call, equipment checks, coffee, meals, and personal.
- Man-hours available for "street duty."

* Determine net time available.

Step 6 Determine Number of Personnel Required to Handling Workload

* Projected man-hours required to respond to projected workload.^{1/}

	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
Traffic activities	130,202	143,222	157,544	173,298	190,628
Non-traffic activities	<u>35,519</u>	<u>39,071</u>	<u>42,978</u>	<u>47,276</u>	<u>52,004</u>
Totals	<u>165,721</u>	<u>182,293</u>	<u>200,522</u>	<u>220,574</u>	<u>242,632</u>

* Divided by 2,920 hours required to staff one position 365 days a year.

	57	63	69	76	83
--	----	----	----	----	----

* Multiply by the availability factor of 1.9 for officers required.

	109	120	132	145	158
--	-----	-----	-----	-----	-----

^{1/} Projected man-hours determined by using activity hours for 1975 as a base adding 10% for each year.

Table 6

AVERAGE NUMBER OF MAN-HOURS AVAILABLE ANNUALLY PER OFFICER^{1/}North Dakota Highway Patrol1972 - 1974

	<u>D i s t r i c t</u>								<u>Totals</u>	<u>Average Per Officer</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>		
1. Number of Personnel Records Sampled	7	12	9	12	12	12	17	10	91	---
2. Reported Man-Hour Available for Assignment (January 1 - December 31, 1975)	17,520	30,016	21,672	30,840	32,144	31,536	39,592	21,176	224,496	2,467
<u>Deductible Time</u>										
3. Days Off	5,456	9,056	6,680	9,688	10,072	9,664	12,272	6,536	69,424	763
4. Vacation	760	1,440	936	1,424	1,448	1,400	2,352	928	10,688	118
5. Sick Leave	224	120	28	104	460	232	444	428	2,040	22
6. Emergency Leave	0	32	8	72	24	24	40	0	200	2
7. Military Leave	0	104	80	120	0	80	0	0	384	4
8. Net Hours Available (1 Minus 3 - 7)	<u>11,080</u>	<u>19,264</u>	<u>13,940</u>	<u>19,432</u>	<u>20,140</u>	<u>20,136</u>	<u>24,484</u>	<u>13,284</u>	<u>141,760</u>	<u>1,558</u>
9. Overtime Worked	965	1,971	1,625	1,798	2,015	1,726	3,111	1,235	14,446	159
10. Total Hours Worked	<u>12,045</u>	<u>21,235</u>	<u>15,565</u>	<u>21,230</u>	<u>22,155</u>	<u>21,862</u>	<u>27,595</u>	<u>14,519</u>	<u>156,206</u>	<u>1,717</u>

^{1/} Source: North Dakota Highway Patrol Overtime Reports dated 1-16-75.

Table 7

MANPOWER AVAILABILITY FACTOR

North Dakota Highway Patrol

1975

- | | |
|--|----------------------------|
| 1. The total number of man-hours required to staff one position 8 hours a day, 7 days a week for 52 weeks a year (adjusted for leap year). | 2,920 |
| divided by: | |
| 2. Average man-hours available per officer | 1,558 |
| equals: | |
| 3. Availability factor. | 1.87 round to <u>1.9</u> . |

Table 8

CURRENT AND PROPOSED STAFFING LEVELSNorth Dakota Highway Patrol

<u>Position</u>	<u>CURRENT</u>		<u>PROPOSED</u>		<u>DIFFERENCE</u>	
	Sworn	Civilian	Sworn	Civilian	Sworn	Civilian
Colonel (Superintendent)	1		1		0	
Lt. Colonel (Asst. Superintendent)	1		1		0	
Major	1		1		0	
Captains	8		4		- 4	
Lieutenants	4		10		+ 6	
Sergeants	10		10		0	
Patrolmen	<u>70</u>		<u>109</u>		<u>+ 39</u>	
	<u>95</u>		<u>136</u>		<u>+ 41</u>	
Clerk-typists		13		13		0
Data Processing Coordinator		1		1		0
Fiscal Officer		0		1		+ 1
Secretary I		1		1		0
Secretary II		1		1		0
Secretary III		1		1		0
Cook I		1		1		0
Cook II		1		1		0
Account Tech.		1		1		0
Accountant II		1		0		- 1
Custodian		<u>1/2</u>		<u>1/2</u>		<u>0</u>
		<u>21-1/2</u>		<u>21-1/2</u>		0

IV. FINDINGS AND CONCLUSIONS

The following conclusions were drawn after completion of numerous discussions with key staff and observations of the operations of the North Dakota Highway Patrol Central Office.

The teams general assessment of the North Dakota Highway Patrol is that it has many strengths, among which are the following:

- * The agency appears to have pride, discipline, good morale, and seems adequately controlled and directed.
- * There is a history of participatory management within the department. The use of committees is prevalent.
- * There are current written rules and regulations, rules, and established policies and procedures. These are distributed to each employee.
- * Highway Patrolmen are deployed and scheduled according to need as determined through evaluation of service demands, volume of work, registrations, population, and the like.
- * Highway Patrolmen are utilized optimally in that there is the exclusive use of one-man patrol units.
- * Overall, the department's training program is excellent. The department provides statewide leadership in this area. It is commendable that quality training is a high priority of the department and that there is extensive use of outside training at nationally recognized schools to supplement in-house training. The department is indeed fortunate to have an attractive and utilitarian training facility; one that is immaculately kept.

- * There is an abundance of data for operational purposes, administrative use and general analysis. These data are effectively used currently to a large extent. However, more in-depth analysis and a broader program of use would be desirable.
- * There is a strong emphasis on higher education within the department. Many people are in college, including the Superintendent. The implementation of the Bachelor's degree entry requirement is fully in accord with the recommendations of both the President's Crime Commission (1967) and the National Advisory Commission on Criminal Justice Standards and Goals (1973).

It was also concluded that there are several aspects of the department that need to be strengthened. These include:

- * Manpower. The Highway Patrol does not have adequate manpower to meet current service demands. This is corroborated by the fact that approximately 5 man-years of overtime was required to respond to service demands.
- * Organization structure. The agency's organizational structure can be further refined by establishing an Administrative Services Bureau and Field Operations Bureau as recommended in Chart II.

- * The NDHP benefits from sound leadership and management. However, some strengthening is necessary in the area of internal controls and inspections.
- * There is a need for an in-depth analysis of space requirements for central headquarters operations. Expansion of the training facility to include housing for female officers and storage space is another facilities need that should be addressed.
- * Equipment, both personnel and operational, is generally adequate. Personal hand-held radio units for each person in the Field Operations Division would be highly desirable. Also, there is a need for several CRT units in headquarters so that planning and research staff may have direct access to the States computer.
- * Current compensation practices contribute to the agency's problem of attracting and retaining qualified career personnel. There is a need for an in-depth evaluation of current compensation practices by a competent authority.

V. SUMMARY OF RECOMMENDATIONS

In general, the NDHP is responsive to the traffic safety and enforcement needs of the State of North Dakota and performs well a variety of public services in a very commendable fashion. There are, nevertheless, a number of ways in which departmental efficiency and effectiveness can be further enhanced. Following are a series of recommendations offered for consideration and implementation in the strengthening of the administration, management, and operations of the North Dakota Highway Patrol.

Organization

It is recommended that the NDHP adapt the basic organization structure illustrated in Chart II of this report. The new structure establishes two major sub-divisions within the organization: the Administrative Services Bureau and the Field Operations Bureau under which all other functional units are placed. These major sub-divisions are further subdivided into functional, and geographical units called divisions. The specific units created are as follows:

Administrative Services Bureau

- * Training and Personnel Division
- * Research and Development Division
- * Safety and Inspections Division
- * Records and Data Processing Division
- * Property and Fleet Management Division
- * Internal Security and Inspections Division

Field Operations Bureau

* Western Operations Division

1. Williston, District 1
2. Minot, District 2
3. Bismarck, District 7
4. Dickenson, District 8

* Eastern Operations Division

1. Devils Lake, District 3
2. Grand Forks, District 4
3. Fargo, District 5
4. Jamestown, District 6

Staffing

It is recommended that the department be staffed as shown in Table 8 of this report. The immediate addition of a minimum of 39 Highway Patrolmen is recommended. An additional 49 are recommended to be added to the force over the next four years so that by 1980 there will be a total complement of not less than 158 Highway Patrolmen assigned to the Field Operations Bureau.

In addition to the staff increases recommended for the Field Operations Bureau, 4 additional positions are recommended for the Administrative Services Bureau and Office of the Superintendent. These positions call for 2 civilians and 2 sworn command level officers. Staffing of these position will only require the addition of 2 more personnel and the reclassification of 4 others.

Management

The department should establish a formal process for investigating and adjudicating reports of misconduct.

Communications

Every effort should be made to secure enough hand-held portable radios for issuance to each on-duty Highway Patrolmen assigned to Field Operations.

The department should purchase or lease 2 CRT units for use in the Central Office to provide for direct access to the State's computer.

Training

The recruit training course for non-Highway patrol officers should be expanded to 400 hours in order to comply with the minimum standards set by the President's Crime Commission and Advisory Commission on Standards and Goals.

Serious consideration should be given to having an outside curriculum specialist--program evaluator review and evaluate the training academy's curriculum and programs.

Recruit officers should be required to wear nameplates during training. Consideration might also be given to issuing nameplates to all officers.

The NDHP training facility should be provided with the following capital improvements:

- * a defensive driving track and skid pad
- * a wing to provide housing for female recruit officers and needed storage space
- * kitchen shelving and a secure foods storage room

The Training Director's duties should be expanded to include supervision of the Academy's Galley, its staff, and the maintenance thereof.

Inter-Governmental Relations

Enabling legislation should be developed and passed that would permit contractual arrangements for police services between the Highway Patrol and local governments.

Facilities and Equipment

A re-assessment of office space requirements should be conducted by a competent space utilization planner to accurately determine existing space deficiencies and projected needs for the next 10 - 15 years.

Personnel Management Practices

The department's compensation practices should be reviewed by competent authority. Salary and fringe benefits should be adjusted so as to be in line and competitive with like jurisdictions.

The department should explore expanding the use of civilian employees in some of the administrative and support service areas.

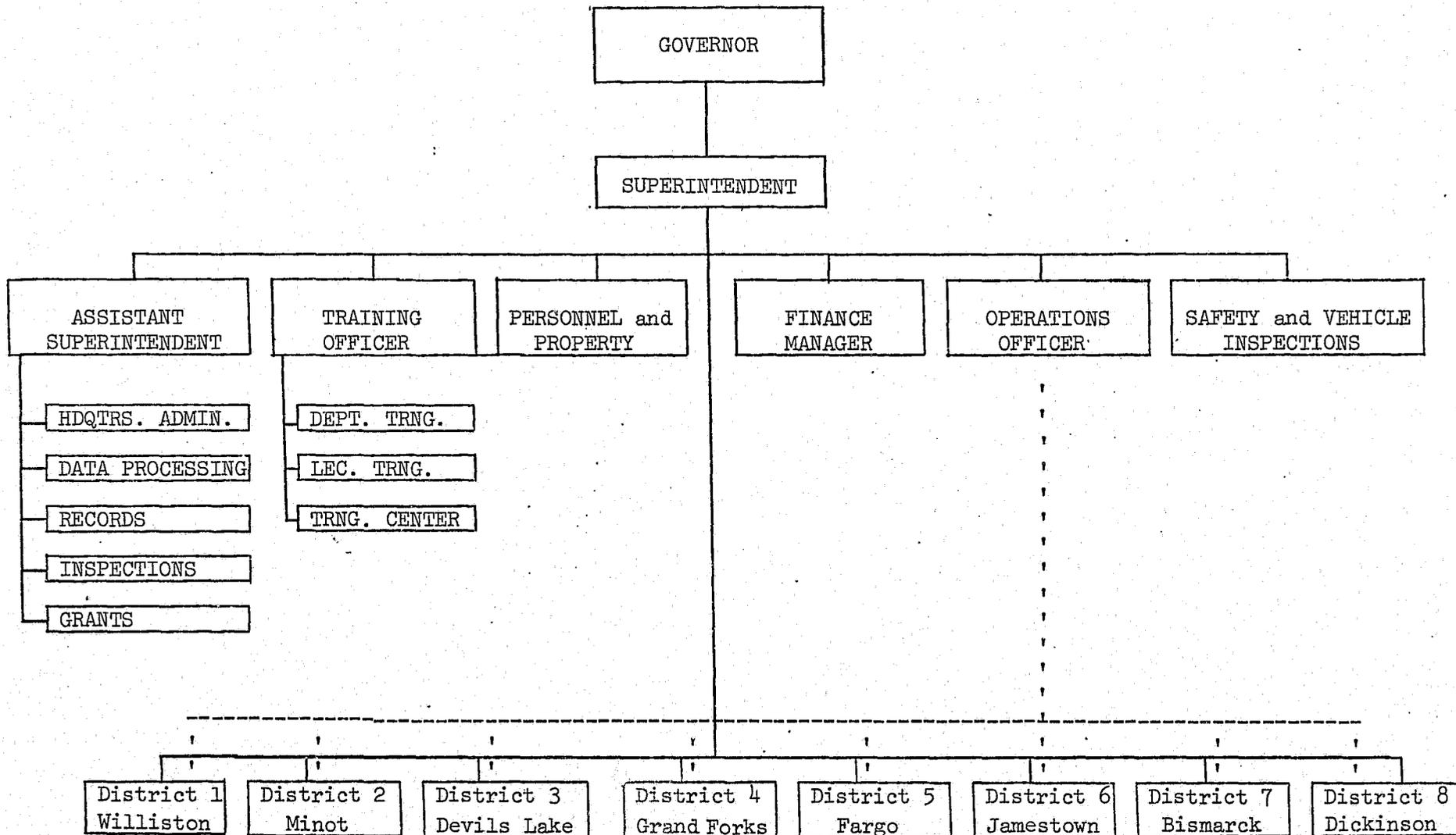
E X H I B I T S

Chart I

NORTH DAKOTA HIGHWAY PATROL

Organizational Chart

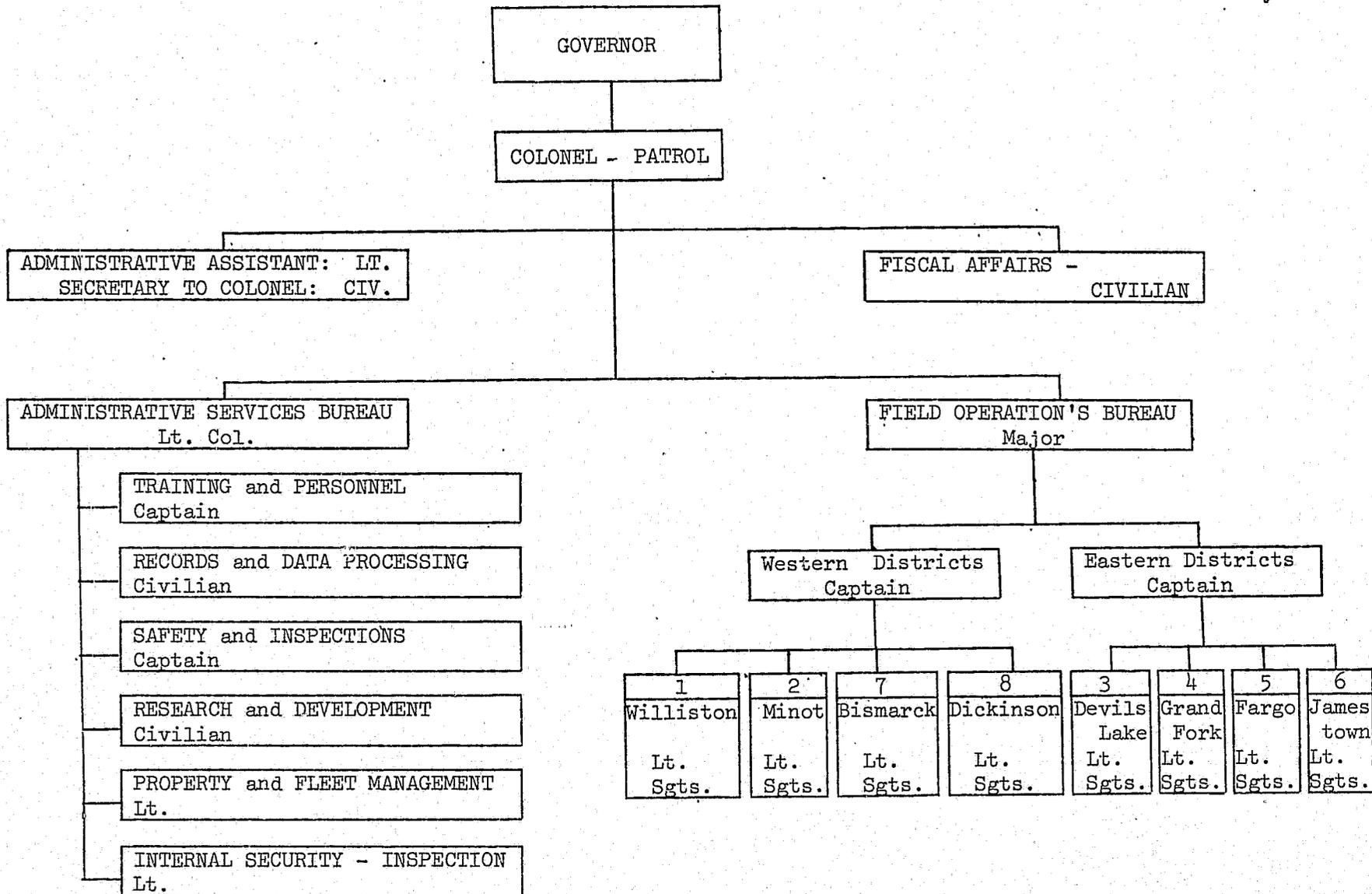
February, 1976



----- Indicates Operational Control

Proposed Organization of the
NORTH DAKOTA HIGHWAY PATROL

February, 1976



Appendix I

PERFORMANCE-COST DECISION-MAKING SYSTEM FOR
FIELD POLICING FUNCTIONS

Source: Phase II, Chapter 2, of the Report to the California Contract Cities Association, prepared by Booz, Allen and Hamilton, Inc., 1972.

Task 1 Forecast the Volume of Community Generated Case Loads Which Will Require Police Handling.

A. This work task provides the framework for:

- Determining the forecasted volume by type of cases of police services requested.
- Developing and maintaining a data base on policing case load.
- Insuring that policing case loads and elements which comprise them are visible.

B. Methodology:

- Define the types of police case loads:
 - Crime investigations.
 - Community service.
- Determine historical trends in reported case loads in terms of volume and percentage change.
- Forecast community generated case load for the next budget period.
- Provide breakdown of projected case load levels and *who* handles.

Task 2 Establish Quantitative Service Level Objectives and Measurement Criteria

A. Purpose: To develop and obtain agreement on service level objectives for field policing forces.

B. Methodology:

- Define major service areas for field policing and their relative priorities:
 - Crime investigation and/or apprehension.
 - Community service.
 - Traffic control or safety.

- Crime repression or prevention.
- Field operations support.
- Establish specific objectives for each field policing service area.
- Monitor the performance of field policing forces at least quarterly and annually.

Task 3 Forecast the Volume of Officer Initiated Work Load That Will be Handled.

A. Purpose: Completes work load data base begun in Task 1.

B. Methodology:

- Define type of officer initiated work loads.
 - Crime repression.
 - Traffic control.
 - Arrests.
- Determine historical trends.
- Project officer initiated work load for next budget period.

Task 4 Measure Average Time Required for each Work Load Activity.

A. Purpose: Provides a basis for quantification of man-hours needed to handle various work tasks.

B. Methodology:

- Define relevant work units for the field policing function.
- Develop an on-going work measurement capability.
- Measure time requirements for field policing work units.
- Develop work output standards.

Task 5 Determine the Number of Field Man-Hours Required for Projected Work Loads
Task 6 and Type of Field Unit Handling Various Activities.

- A. Purpose: (1) To convert forecasted work load volume into man-hour requirements, and (2) to allocate the man-hours among various types of policing units and personnel classifications.
- B. Methodology:
- Determine the number of man-hours required for each work load activity.
 - Determine the man-hours by type of field unit and personnel to handle forecasted work loads (Task 6).

Task 7 Determine the Manpower Availability for Each Type of Field Personnel.

- A. Purpose: To determine the estimated number of man-hours which each type of personnel are anticipated to be available to handle projected field policing work loads.
- B. Methodology:
- Determine average number of man-hours available per field personnel for each assignment.
 - Determine the average number of man-hours available per field personnel for "street" duty.

Task 8 Determine the Number and Types of Field Personnel Required to Handle Forecasted Field Work Loads.

- A. Purpose: To convert forecasted man-hours for handling field policing work load by types of field personnel into estimated numbers of authorized personnel considering the manpower availability factor determined in Task 7.
- B. Methodology:
- Divide the projected number of work load man-hours for each type of personnel classification (as completed in Tasks 5 and 6) by the average man-hours available for each authorized position (as calculated in Task 7).

Task 9 Determine Manpower, Equipment, Facility, and Other Support Costs for the Field

Task 10 Policing Function

Task 11

Task 12

A. Purpose: These four integrated tasks determine the direct cost of the field policing function resulting from resource requirements needed to achieve service objectives.

B. Methodology:

- Task 9—Determine individual and total manpower costs by personnel classification.
- Task 10—Determine equipment costs for field policing.
- Task 11—Determine facility costs for field policing.
- Task 12—Determine other direct support costs.

Task 13 Compare Field Policing Costs With Available Funds

A. Purpose: To determine whether projected costs for the field policing function to meet service levels are compatible with estimates of the funds to be available during next budget period.

B. Methodology:

- Review total departmental costs vis-a-vis field policing costs.
- Check prebudget figures with city manager and city council.

Task 14 Analyze the Benefits and Costs of Alternative Approaches for Providing Field Policing Services.

A. Purpose: To provide an on-going analysis of the benefits (advantages) and costs (disadvantages) of alternative approaches and methods for providing field policing services.

- At acceptable levels.
- Of satisfactory quality.
- Efficiently.
- Economically.

B. Methodology:

- Develop an adequate understanding of current field policing responsibilities and understanding.
- Identify and document field policing issues which would profit from benefit and cost analysis.
- Formulate objectives and measures to which alternative solutions can be compared.
- Identify alternative approaches or methods for solving the problem and achieving specific objectives.
- Evaluate the benefits of alternatives identified.
- Evaluate the costs of the alternatives identified.

END