



DORSET POLICE

**POLICE COMPUTING EXPERIENCE
IN
DORSET**



55/05

CONTENTS

	<u>Page No.</u>
1. INTRODUCTION	1
2. BACKGROUND	2
2.1 Force Structure	2
2.2 Communications	5
2.3 Computerisation Developments 1964-1974	5
3. NEW MANAGEMENT INFORMATION SYSTEM	10
3.1 Description of Sub Systems	12
3.1.1 Command and Control	12
3.1.2 Message Switching	13
3.1.3 Management Information	13
3.2 System Architecture	15
3.2.1 Computer Configuration	15
3.2.2 Visual Display Network	17
3.2.3 Teleprinter Network	17
3.2.4 Vehicle Status and Location Equipment	17
3.3 Training	17

LIST OF FIGURES

FIGURE 1 - DORSET POLICE FORCE AREA	3
FIGURE 2 - FORCE ORGANISATION	4
FIGURE 3 - HISTOGRAM - RESOURCE ACTIVITY	8
FIGURE 4 - MAP DISPLAY OF CALLS FOR SERVICE ETC	9
FIGURE 5 - SYSTEM CONFIGURATION	16
FIGURE 6 - VISUAL DISPLAY NETWORK	18
FIGURE 7 - TELEPRINTER NETWORK	19
FIGURE 8 - BOURNEMOUTH CONTROL ROOM	20
FIGURE 9 - VEHICLE STATUS AND LOCATION EQUIPMENT	21
FIGURE 10 - FORCE TRAINING FACILITIES AT POOLE	22

DORSET POLICE MANAGEMENT INFORMATION SYSTEM

1. INTRODUCTION

The Dorset Police is in the process of implementing a computer - based Management Information System - the Force having pioneered the development of such systems by previously utilising the resources of the Local Authority (Dorset County Council) computer.

First experiments with the use of computers commenced in 1964 when the Local Authority made facilities available to produce basic crime and accident statistics. Programmes were subsequently refined and it then became very evident that computer analysis of the data available could provide valuable information for operational supervisors and senior management.

Initially data was derived from manually prepared documents (a time consuming exercise) and therefore experiments were conducted to provide methods of real time input. A semi automatic vehicle status and location input device (VSL) was developed whereby mobile units could transmit information to control rooms by coded tones over VHF radio. This device used in conjunction with control room inputs enhanced the system by capturing in real time the location and status changes of all units and together provided the basis for a computerised command and control and management information system.

Because of the potential foreseen, opportunity was taken in 1972 to reorganise the Force into a more positive system of Command and also to design communications to fit the Command structure.

The reorganisation and introduction of the new system whilst highlighting the considerable capabilities of the computer as a management tool, also indicated the limitations of the computer facilities then available, ie information was only available historically. With the increasing level and complexity of police operations more comprehensive and up to date information and an improved communications system were required if maximum benefits were to be achieved. It should be mentioned that until this time virtually all the experiments had been conducted by the Force within its limited financial budget and computer expertise. Accordingly in 1974 an approach was made to the Home Office for assistance and following a feasibility study, it was agreed that as part of a programme to develop cost-effective computer systems for the Police Service as a whole the Force and the Home Office Police Scientific Development Branch should participate in implementing and evaluating a computer based management information system, the project being funded jointly.

The system consists of two small police-dedicated computers supporting a sophisticated communications network of visual display terminals and teleprinters and also connected to the Local Authority computer by high speed data links. The police computer system will cater for inputs and retrieval of operational information in real time for example it will continuously record and monitor the activities of all operational police officers and will enable police controllers to allocate appropriate resources to emergency and other calls for immediate service.

Subsequent computer analysis of the information will indicate areas where efficiency may be improved. Data will be transferred to the Local Authority computer for long term storage retrieval and for the production of periodic management, statistical and other reports.

The project comprises 14 sub-systems, five of which cover command and control, eight provide management information and the remaining sub-system is the sophisticated computerised message switching system.

Initially the message switching, incident logging and resource availability sub-systems were introduced and the remaining facilities are being implemented as they become available.

The major aim of the project, which is based upon requirements specified by Working Parties of the Force, is to develop a system which will benefit not only Dorset but the Police Service as a whole. It has already attracted wide interest from Police both at home and overseas and it is hoped that it may become a model for Forces wishing to develop their own system.

The background and development of the command and control and management information system is explained in more detail in the ensuing pages.

2. BACKGROUND

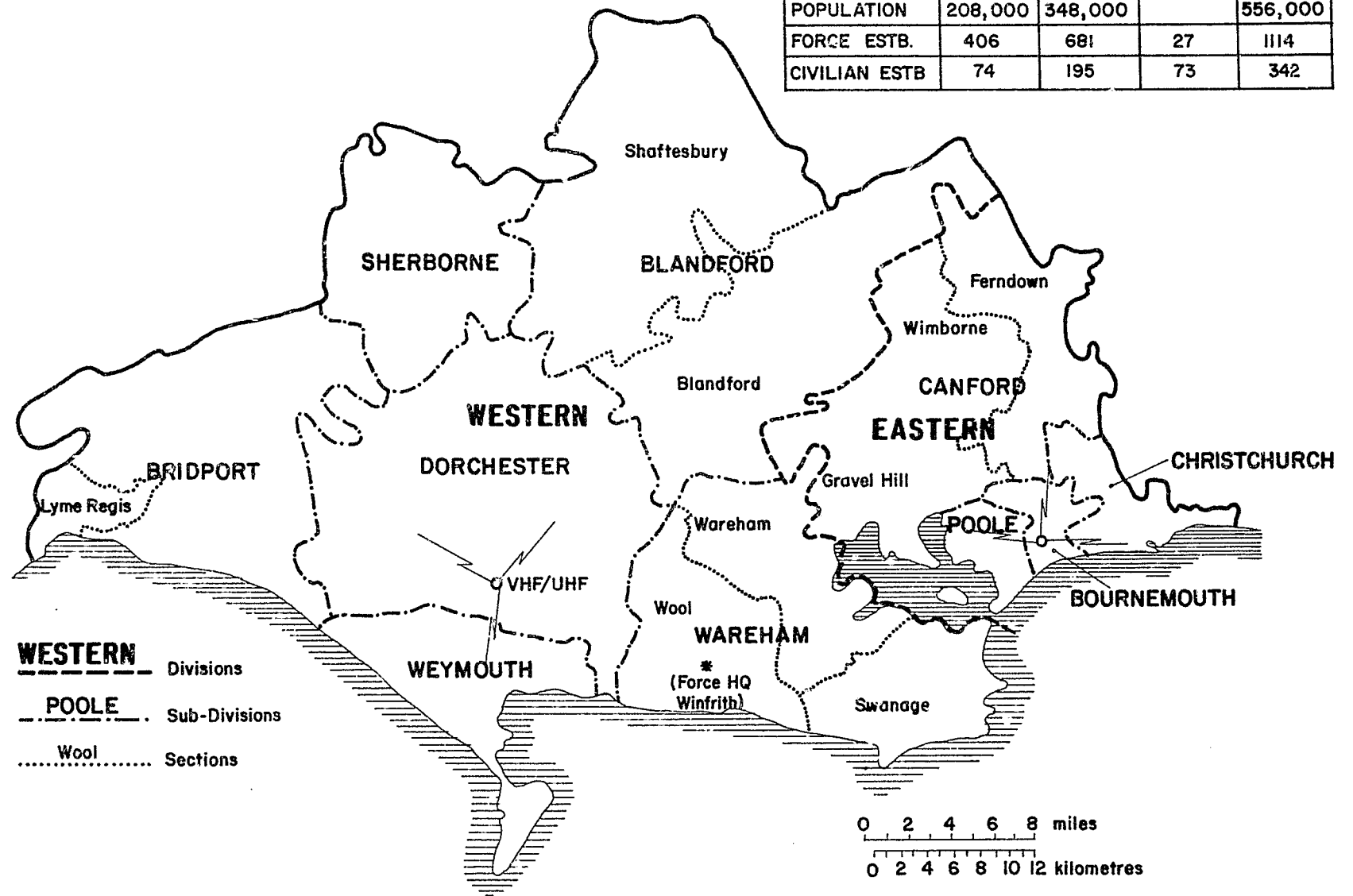
2.1 FORCE STRUCTURE

The Dorset Police is a county force with a current (January 1978) establishment of 1114 officers. The county comprises some 2600 square kilometres (1050 square miles approx) with a resident population of almost 600,000 which trebles during the summer period. Although mainly a rural area there are several large conurbations for example Bournemouth (population 147,000) and Poole (population 111,000) - see map Figure 1.

The force organisation is illustrated in Figure 2. It resulted from a major organisation in 1972 which was designed to streamline the chain of command and promote greater efficiency in the use of resources. It differs in a number of respects from traditional police organisations but was founded upon four basic principles of organisation viz:

1. Organisation of manpower should have a clearly defined single chain of command and control, particularly when the work force operates in a fluid environment where decisions have to be taken frequently and quickly.
2. Command and control of field operations can only be carried out to optimum effect by management totally committed to the operations, with constantly updated knowledge concerning all matters relating to them.

	WESTERN	EASTERN	HQ	TOTAL
ACREAGE	528,000	136,000		664,000
POPULATION	208,000	348,000		556,000
FORCE ESTB.	406	681	27	1114
CIVILIAN ESTB	74	195	73	342



THE FORCE AREA OF DORSET POLICE

Figure 1.

DORSET POLICE ORGANISATIONAL STRUCTURE

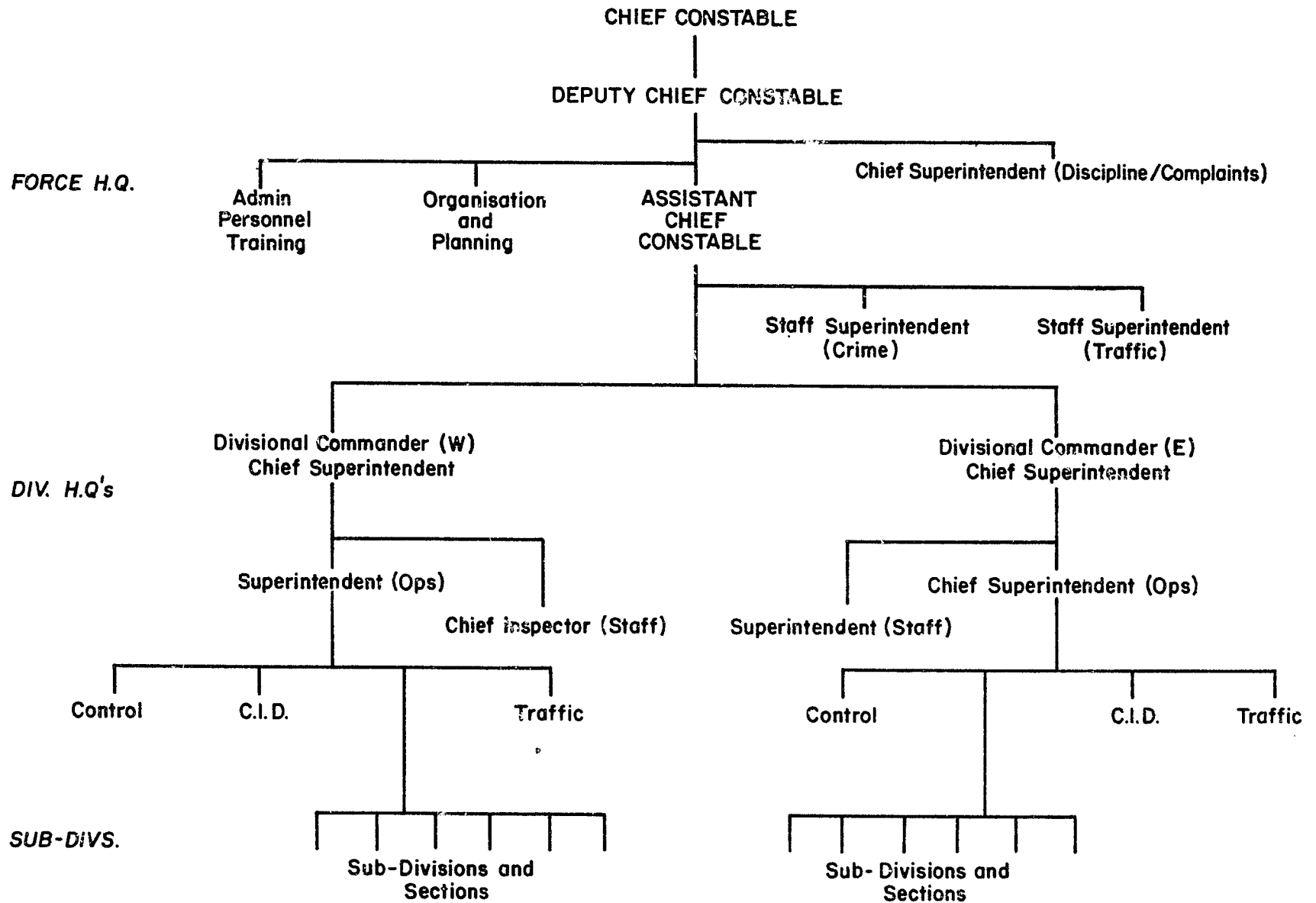


Figure 2

3. Lines of communications must be purpose built so as to meet, in the most effective manner possible, the needs of the operational organisation they serve.
4. In order to be efficient operational management must have available to it comprehensive facts relating to work load and be able to evaluate, objectively its own efficiency.

The Force Headquarters is located at Winfrith near Dorchester and there are two territorial divisions, Eastern and Western, with their Headquarters at Bournemouth and Dorchester respectively.

The Eastern Division has four sub-divisions and the Western six. Larger sub-divisions (either in terms of manpower or territory) are further divided into sections. Patrol (or beat) areas known as sub areas are defined within geographical boundaries each sub-area being allocated a unique three letter code which indicates the sub division, section and sub area.

2.2 COMMUNICATIONS

Radio communication with operational units is provided by VHF and UHF schemes, ie foot patrols use UHF; panda and rural mobile units use both VHF and UHF and traffic and marine patrols use VHF. Vehicle status and location (VSL) devices installed in operational mobiles will enable officers to report their current status and location in digital form (as a series of coded tones) via the VHF radio channels without involving the control room radio operator in voice transmissions.

As a result of the 1972 reorganisation a single tier communications system was adopted. This necessitated the discontinuance of Force VHF control, and the numerous UHF sub controls, the transfer of the Traffic Branch from Headquarters to divisional responsibility and the setting up of divisional controls which were given full responsibility for the control of all operational resources (both VHF and UHF) within the divisional territory. All 999 calls and other calls for police service are now routed to the appropriate control room for action. Facilities also exist for either control room to take command and control any incident on a Force basis should the need arise.

The adoption of the single tier system overcame a number of problems associated with the traditional two tier system including the elimination of delays in the switching of emergency calls from Force to sub controls and the double-servicing of incidents.

2.3 COMPUTERISATION DEVELOPMENTS 1964-1974

As indicated in the Introduction the first experiments with the use of computers commenced in 1964 when the Local Authority (Dorset County Council) provided facilities to produce basic crime and accident statistics suitable for use in the Chief Constable's Annual Report, but not in sufficient detail for Home Office statistical returns. The basic data was provided by operational officers completing stats sheets as part of their normal function when dealing with crime or traffic accident.

The Local Authority staff then prepared punch cards from the stats sheets to produce monthly returns.

The program was refined in 1966 to satisfy Home Office needs and included the introduction of new stats sheets. It had already become evident that computer analysis of the considerable volume of data available could provide valuable information for operational supervisors and senior management ie Management Information. Further experiments were commenced and various methods employed to convey the information to managers. It quickly became apparent that presentation to an operational supervisor of masses of information in tabular form on computer printouts was wholly unacceptable. Sheer volume of statistics (and up to 22 yards of paper!) prevented assimilation and therefore supervisors were unable to take effective action to remedy any shortcomings. However a presentation which proved more acceptable comprised a system of grid squares superimposed over printed maps to show for example location of crime by day of week and period of day; symbols and colours being used to denote types of crime and numbers. These maps were prepared manually but because the operation became so time-consuming it had to be abandoned. However the experiment proved the value of visual statistical information to operational supervisors providing it could be easily assimilated.

To provide additional information for management attempts were then made to capture data on the activities of operational resources.

One idea conceived within the Force in 1967 resulted in the development of a semi automatic vehicle status and location input device (VSL) whereby mobile units could transmit information to control rooms by coded tones over VHF radio without involvement of control operators. This system when entered in an American competition (1969) was awarded joint first prize 'for outstanding contributions to the field of Police science and technology'. Experiments involving the VSL equipment were carried out in 1971 with the help of the Home Office Directorate of Telecommunications. The Force area was divided into map areas comprising grid squares the rural squares covering larger areas than those for towns. Each square was allocated a unique two letter code - several squares being grouped to identify mobile or patrol areas. Changes of duty status and location were input by (a) use of the VSL devices, (b) manual input by VHF radio operators and (c) use of mark sensing documents by UHF operators.

This information collated with crime and accident statistics provided improved computer print outs but again the system relied too much upon human involvement. There were too many inaccuracies eg mark sensing documents were frequently rejected because of errors; location reports were inaccurate as officers found difficulty in relating grid square boundaries to physical locations, and also the prototype VSL devices (although workable) needed modification.

With the aid of the resource activity information the system of policing rural villages was experimentally reorganised in 1970 whereby residential rural officers were withdrawn and patrols of these areas undertaken by mobile teams based at section stations. As a result of the information derived from the close monitoring of both schemes, the reorganisation was accepted by the Rural Councils and the Police Authority and in consequence it was possible to redeploy officers to urban areas where demands were greater.

Because of the progress made and the potential foreseen the Force was reorganised in 1972 to incorporate a more positive system of command with communications designed accordingly (paragraph 2.2 ante).

The territorial divisions were reduced from three to two, each division having its own control room with responsibility for controlling all operational units within its territory.

The grid square location areas were replaced by areas within physical boundaries eg streets, estates, rivers or prominent landmarks. Operational duties were broken down into 34 two-digit codes to define uncommitted patrols (by type), emergency calls for service, other operational duties etc. Information on duty status and location of operational units was input into the system by:-

- (a) activation of modified VSL device which would transmit in coded tones by VHF radio the collar number of the operational patrol, a three letter code to define the location and a two digit numeric code to indicate the type of duty being performed, or
- (b) a radio operator manually punching into the system via a keyboard, similar information either as a result of a dispatch of a unit by control or following a normal voice transmission from the unit via VHF or UHF.

All inputs including an automatically injected time were recorded on a paper print out on radio consoles and also on perforated tape for subsequent computer analysis. The most recent input (excluding time) in respect of a unit could then be recalled on visual display units and updated by control room operators.

The facility for real time input improved accuracy and reliability and following re-styling of the Management Information printouts the presentation to operational supervisors became more acceptable and enabled them to assimilate the information and take appropriate action. Two typical printouts are shown at Figures 3 and 4. Figure 3 which is a histogram depicting by coloured bars the various operational activities by section of the force proved very successful and endorsed the need for a type of visual presentation which could be quickly understood and assimilated.

WORK LOAD RELATED TO WORK FORCE BY HOUR OF DAY



July 1999

**DORSET POLICE
EASTERN DIVISION - MAPS 'I' & 'K'**

October

Comparison of 'CALLS FOR SERVICE' and 'CRIME' frequency rates

Day Group Sunday Period 2200 - 0200

KEY

CRIME

○ Less than 1 every 15 days

◐ 1 every 7-15 days

◑ 1 every 3-6 days

● 1 or more every 2 days

CALLS FOR SERVICE

◻ Less than 1 every 5 days this period

◐ 1 every 2-5 days this period

◑ Average 1 or 2 per day this period

● Average over 2 per day this period



Figure 4

Amongst other things the Management Information reports highlighted the disproportionate amounts of time spent in stations, on collecting/delivering duties and on escorting prisoners and corrective measures were taken eg the use of civilian clerical assistants and drivers also the introduction of a prison van service. The resource activity histogram (Fig 3) also showed that outside manpower levels were often unacceptably low at certain shift changeover and refreshment times. In consequence additional duty tours were introduced to improve patrol coverage at critical times.

Concurrently other experiments were being carried out by the Force, two of which are worthy of mention.

The first was a joint project with Home Office Directorate of Telecommunications which involved transmission of coded data via UHF in a similar manner as the VHF VSL devices. For this purpose Pye Pocketfone transmitting units were modified by attachment of extra equipment but this made the units cumbersome and difficult to handle. However it proved feasible to transmit data by this means and it is to be hoped this facility will be developed using more suitable purpose built equipment.

The other experiment comprised the installation in patrol vehicles of a fast printing device to receive via coded tones and printout in plain language messages transmitted from control rooms over VHF. By this means messages prepared on a screen of a computer visual display unit could be transmitted to a selected mobile unit or as a general broadcast.

Numerous advantages were evident eg

1. Accuracy of message
2. Security of transmission
3. Printed record available with no need for officer to make written notes
4. Printed message received in absence of officer.

These machines were found to be efficient and serviceable but this aspect has not been developed further on the grounds of cost and the non-availability of a separate radio channel for data transmission.

Valuable lessons have been learnt during these periods particularly careful training is essential for not only the operators of the system but also for the supervisors and senior management who have to interpret and act upon the management information reports.

2.3 NEW MANAGEMENT INFORMATION SYSTEM

Despite the successes achieved and the considerable potential of the computer as a management tool, the situation was reached in 1974 when managers became increasingly dissatisfied with the management information available. It was limited to predetermined historical reports with no facilities for 'ad hoc' enquiries.

Furthermore substantial delays were occurring in report production which prevented effective remedial being taken.

The need for a real time computer facility became apparent and in consequence the Home Office was approached for assistance. Following a feasibility study it was agreed that as part of a programme to develop cost effective computer systems for the Police Service as a whole, the Force and the Home Office Police Scientific Development Branch should jointly fund, implement and evaluate a computer based management information system.

A project team was formed and in early 1975 working parties were set up under a Steering Committee to make recommendations on the sub systems to be included in the total project. It is essential that the Force should decide its operational requirements. The working parties (comprising representatives from each rank and branch of the Force - including civilians) prepared reports from which an operational requirement was produced and circulated to some 40 computer firms. A contract was subsequently awarded to Plessey Radar in early 1976 and the first sub systems of a phased implementation were taken into operational use in May 1977.

It was interesting to note the immense amount of enthusiasm shown by the members of the Working Parties and a number of new ideas emerged in their recommendations.

The new system is based on a flexible distributed computer configuration consisting of two police dedicated mini-computers connected to the Local Authority computer complex by high speed data links. From the outset a major aim of the project was to develop a system which would benefit not only the Dorset Police but the Police Service as a whole.

The system which will be closely monitored and evaluated comprises 14 sub systems which fall under three headings ie

Command and Control

Incident logging
(INCELOG)

Resource availability
(RESORS)

Duty states
(DUSTAT)

Burglar alarms
(BURGLARMS)

Street index
(STRINDEX)

Message switching

(MSS)

Management Information

Crime recording
(CRIMREC)

Stolen property
(STOLPROP)

Traffic
(TRAFF)

Arrest and process
(ARPRO)

File movement
(FILEM)

Daily report
(DAYREP)

Police effectiveness
(POLEF)

Personnel Records
(PERSNEL)

3.1 DESCRIPTIONS OF SUB SYSTEMS

3.1.1 Command and Control

Incident Logging (INCELOG)

The incident log forms the basis of the Command and Control System. Controllers record, using visual display terminals, details of incidents reported to the police, resources despatched and action taken. During incident logging, displays of resource availability are produced to assist Controllers in despatching units to incidents.

Once recorded in the computer database, incident logs may be recalled by a number of retrieval keys. Subsequently, incidents can be analysed by parameters such as areas of the Force to provide guidance and assistance in planning the allocation of resources.

Resource Availability (RESORS)

This sub system is concerned with the recording of duties performed by individual officers and with the display and monitoring of availability of officers for deployment by Controllers.

Resource updating information enters the system either from Vehicle Status and Location devices or from Control Room VDUs. Reminders are generated if duty times (eg elapsed time at the scene of an incident) exceed specified values. The system will also continuously monitor available resource levels and produce exception reports when these fall below specified levels.

Subsequently, the resource activity information will be analysed as a guide and to assist in the planning of the allocation of resources.

Duty States (DUSTAT)

This sub system will provide a means of allocating future duties to personnel. The computer produces trial duty state formulations based on the shift rota currently operated by the Force, six weeks in advance of the day the duties are due to commence. Information from each officer's personal record is used in producing the trial formulations.

The trial duty states are vetted by supervisory officers and updated in respect of sickness, special operations, etc. Hourly, minimum duty state levels are held for each section of the Force and exception reports are produced if these are not met.

Subsequently, duty states are analysed as a guide to the utilisation of resources particularly in relation to abstractions from operational strength.

Burglar Alarms (BURGLARM)

A file will be maintained of alarmed premises. It will contain the location, access points, special features and details of keyholders for each premises. Proformas will be produced for the regular updating of keyholders and false alarms will be monitored and reported.

Street Index (STRINDEX)

A computer-based street index will be maintained for the urban areas of the county of Dorset. The sub system allocates a Force location code and a six figure Ordnance Survey grid reference on input of an address or landmark name.

This facility will be used during incident logging to validate the location of the incident and to control the generation of the Automatic Resource Display for the area in which the incident lies. The allocated Ordnance Survey references will be used in analysing incidents, crimes and other occurrences geographically as a guide to the assignment of beat, section and sub divisional boundaries.

3.1.2 Message Switching (MSS)

Facilities are provided to route formatted messages automatically between VDU and teleprinter terminals. The system operates on a store-and-forward principle with messages queued according to three priority classes. Message assurance, editing and recovery facilities are provided together with full network monitoring and supervision.

The MSS is used to circulate operational information, eg crime and stolen property circulations, and to provide each Police Station with access to the MIS files.

3.1.3 Management Information

Crime Recording (CRIMREC)

Crime reports will be input direct from Police Stations via VDU or teleprinter. Copies of Crime Record sheets will then be produced automatically to CID Administrative Offices for perusal and filing.

Twelve months' crime information will be kept on-line to facilitate enquiries from detectives, particularly in respect of Modus Operandi searches. Force and Home Office statistical returns will be compiled automatically and crime trends and patterns will be reported.

Stolen Property (STOLPROP)

This sub system will maintain an on-line file of information relating to items of property reported stolen within the Force area. For each stolen item a coded description (comprising a main code and sub code) and a free text description will be held. In addition, cross references will be maintained with the Crime Master file. The sub system may be interrogated by main and/or sub code, or by crime number. Identifiable property details will be retained for three years; non-identifiable for one year.

Traffic Accidents (TRAFF)

Traffic accident reports will be input directly from Police Stations via VDU or teleprinter. Returns of traffic accidents will be provided to supervisory officers and to the Accident Unit of the County Surveyor's Department.

Arrest and Process (ARPRO)

This sub system is to provide statistics on the number of arrests and summonses within the Force area. Details of offenders will be entered into the system direct from Police Stations via VDU or teleprinter. Further updating of the offender record will be carried out from police Process Offices, where the information to be added will include the court(s), date(s) and the case results.

Force and Home Office statistical returns will be compiled automatically and will be used as a guide to enforcement policy.

File Movement (FILEM)

This sub system will monitor the submission, location and progress of certain (manual) files - Crime files, Traffic Accident files, Offence Reports and Court files. Time intervals have been specified for the processing of such files through their various stages and exception reports will be produced on overdue files. In addition, the system will monitor the initial computer inputs for Crimes, Traffic Accidents, etc, and flag those records with incorrect fields or which have mandatory fields omitted.

Daily Report (DAYREP)

This sub system will draw together information from other sub systems and produce a report on the previous day's incidents, crimes, accidents and arrests, for each section, specialist departments such as CID, and for senior officers.

Police Effectiveness (POLEF)

Various reports will be produced for the managers involved with supervision at various levels in all branches of the Force.

Crime reports will be produced according to pre-determined levels identifying potential problem areas by types of crime, frequency and location. Actual and potential black spots for accidents will be identified. All reported cases of vandalism will be monitored and plotted by type of damage, type of property attacked, location, period of the day, day of the week.

Time taken to respond to incidents will be monitored and exception reports produced identifying areas of concern where the response times are longer than the accepted norm for the area.

Whilst it is believed every major area of operational activity and interest is being catered for with these management reports, great emphasis is placed on training all levels of management on the scope and potential of the system, how to use it effectively and how to interrogate the computer database for further details on pertinent matters so that accurate and timely answers to queries can be obtained, using the nearest terminal.

Personnel Records (PERSNEL)

A comprehensive record on each officer is available to certain officers at Headquarters. The file can be interrogated by a wide range of factors such as qualifications and specialist skills, thus providing an aid to the long term training and career development of Officers. This sub system also provides the basic information for the duty states sub system and is used to schedule training of officers.

3.2 SYSTEM ARCHITECTURE

3.2.1 Computer Configuration

The computer system consists of two PDP 11/35 mini computers in a tandem configuration, each processor having 96K words of core store (see Figure 5). This configuration was selected to provide flexibility and high data throughput combined with high reliability. The normal allocation of tasks between the processors is given below:

Front End System

Input/Output Software
Testing/training
Program development
for future application
areas.

Back End System

Operational sub systems

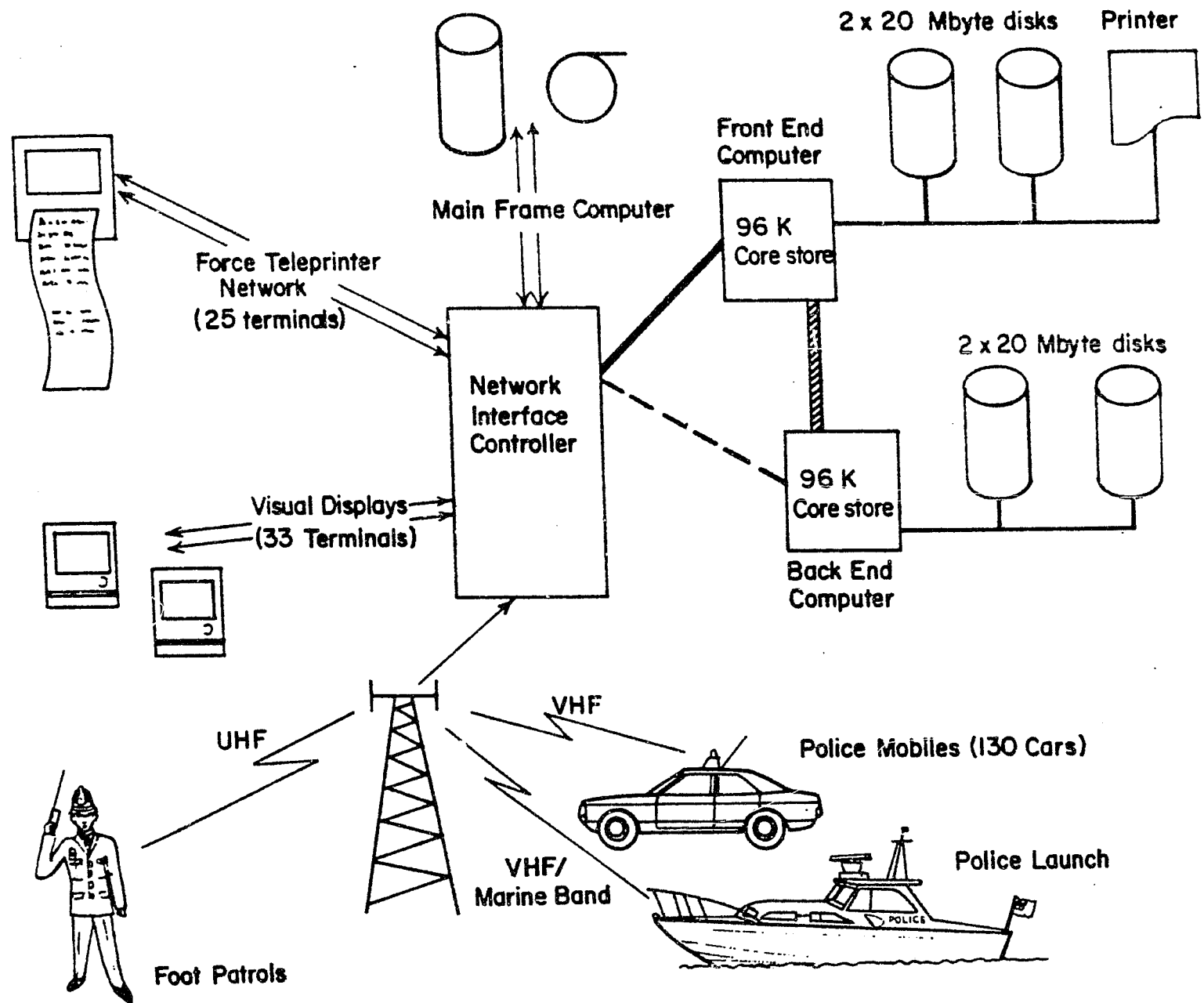
The operational system can support either a program development or a training activity without significant degradation of response times. In the event of a failure of either processor, the system may be restarted manually within a few minutes as a single processor configuration. Under those circumstances, the program development and training facilities will be temporarily lost, but all the operational sub systems can be supported, albeit, possibly with degraded response times. In practice, non-essential facilities may be suspended during periods of fallback working to ensure acceptable response times for Command and Control sub systems. The frequency of simultaneous failures of both computers is estimated to be in the region of once per 5 years.

Eighty megabytes of disk storage are provided as 4 x 20 megabyte exchangeable drives. Loss of data is prevented by taking periodic dumps and keeping a log of intermediate updates. This allows the files to be rebuilt to their original status at the time of failure.

The system is connected via two 4800 bps data lines to the Dorset County Council Local Authority computer complex - an ICL 1904S (soon to be replaced by a more powerful ICL 2900 series machine). The Local Authority computer is used for long term data storage and retrieval and for generation of certain management reports. One line is reserved for file transfers between computers and the other for interactive traffic between police VDUs and the Local Authority computer.

SYSTEM CONFIGURATION

Figure 5



3.2.2 Visual Display Network

The network, shown in diagramatic form in Figure 6, comprises 33 Visual Display Terminals deployed at Force Headquarters at Winfrith, Bournemouth, Dorchester and Poole. ICL VDU terminals are used throughout the system. Two ICL 7502 cluster controllers are provided at the Bournemouth and Dorchester Control Rooms to ensure high terminal availability. All remote terminals operate synchronously at 2400 bps. Local terminals at Bournemouth operate at 4800 bps. Four 60 cps printers are installed at strategic locations throughout the Force. Figure 8 shows the Bournemouth Control Room.

3.2.3 Teleprinter Network

Twenty-five teleprinters are connected to the processor as illustrated in the block diagram in Figure 7. They operate at 75 bps. Teleprinters may be used in three modes:-

- (i) To send and receive police messages to and from other teleprinters or VDUs (message switching).
- (ii) To interact with the Management Information System (eg input of crimes, updating of duty states, etc).
- (iii) To receive unsolicited outputs from the MIS (eg exception reports).

These teleprinters provide virtually every Police Station within the Force area with a means of accessing the police data base.

3.2.4 Vehicle Status and Location Equipment

A total of 130 operational vehicles are to be equipped with semi-automatic status and location signalling equipment, see Figure 9 below. The VSL device transmits signals as audio tones on the two Force VHF voice channels. The operational facilities include an emergency button, which also opens the radio channel for a short period, and an "at-scene" button to signal arrival at an incident.

Two VSL decoders (one for each radio channel) are interfaced to the computers via CCITT V24 interfaces.

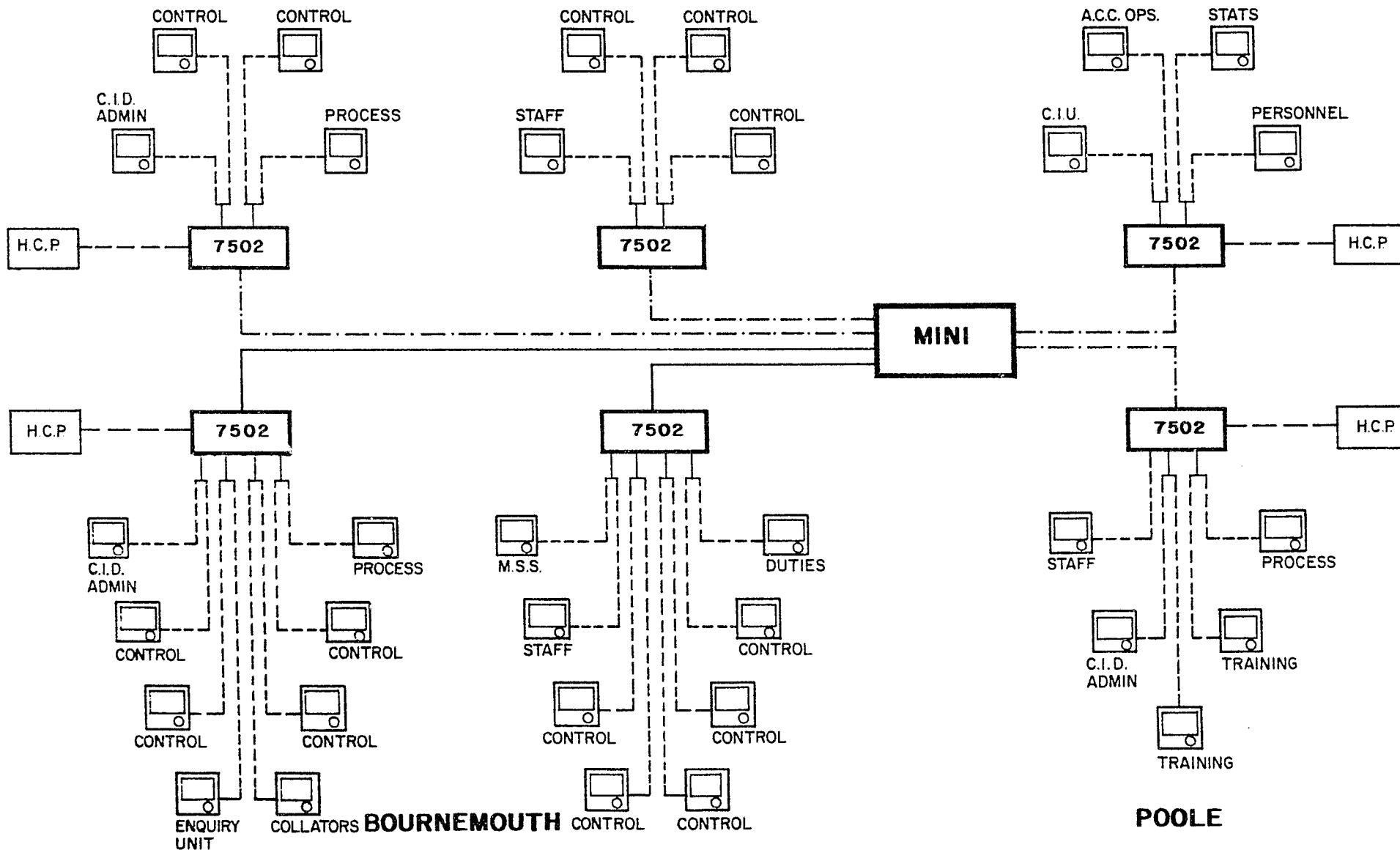
3.3 TRAINING

To ensure that officers are correctly trained according to their individual requirements, a well-equipped and staffed training complex has been established at Poole.

Initially all personnel attend a one-day appreciation course during which the overall system is briefly explained. They are then given an introductory period of "hands on" training with visual display units linked to the mini computer network. Simple decision-making exercises are available and have proved to be very popular.

DORCHESTER

FORCE H.Q.

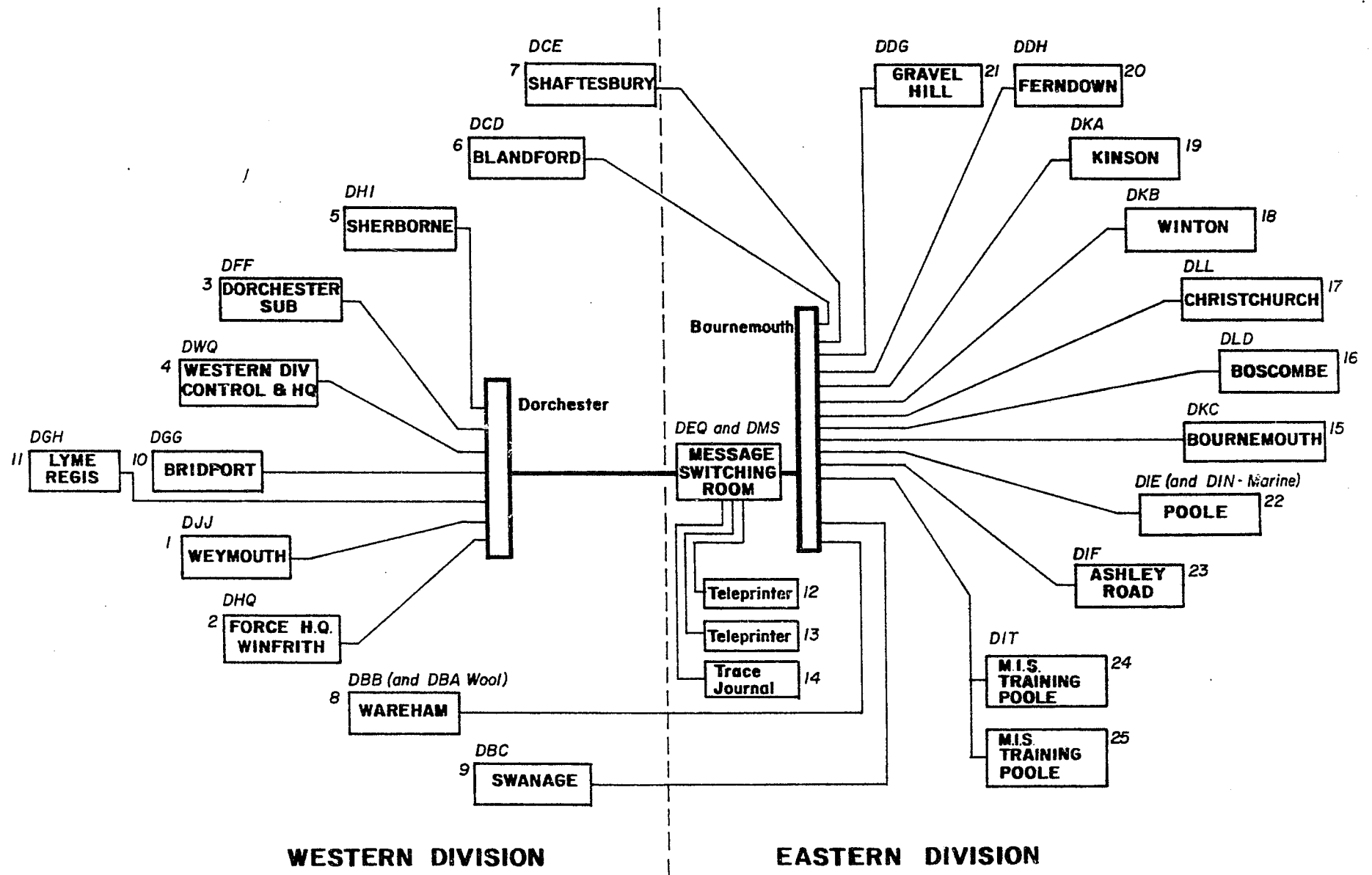


BOURNEMOUTH

POOLE

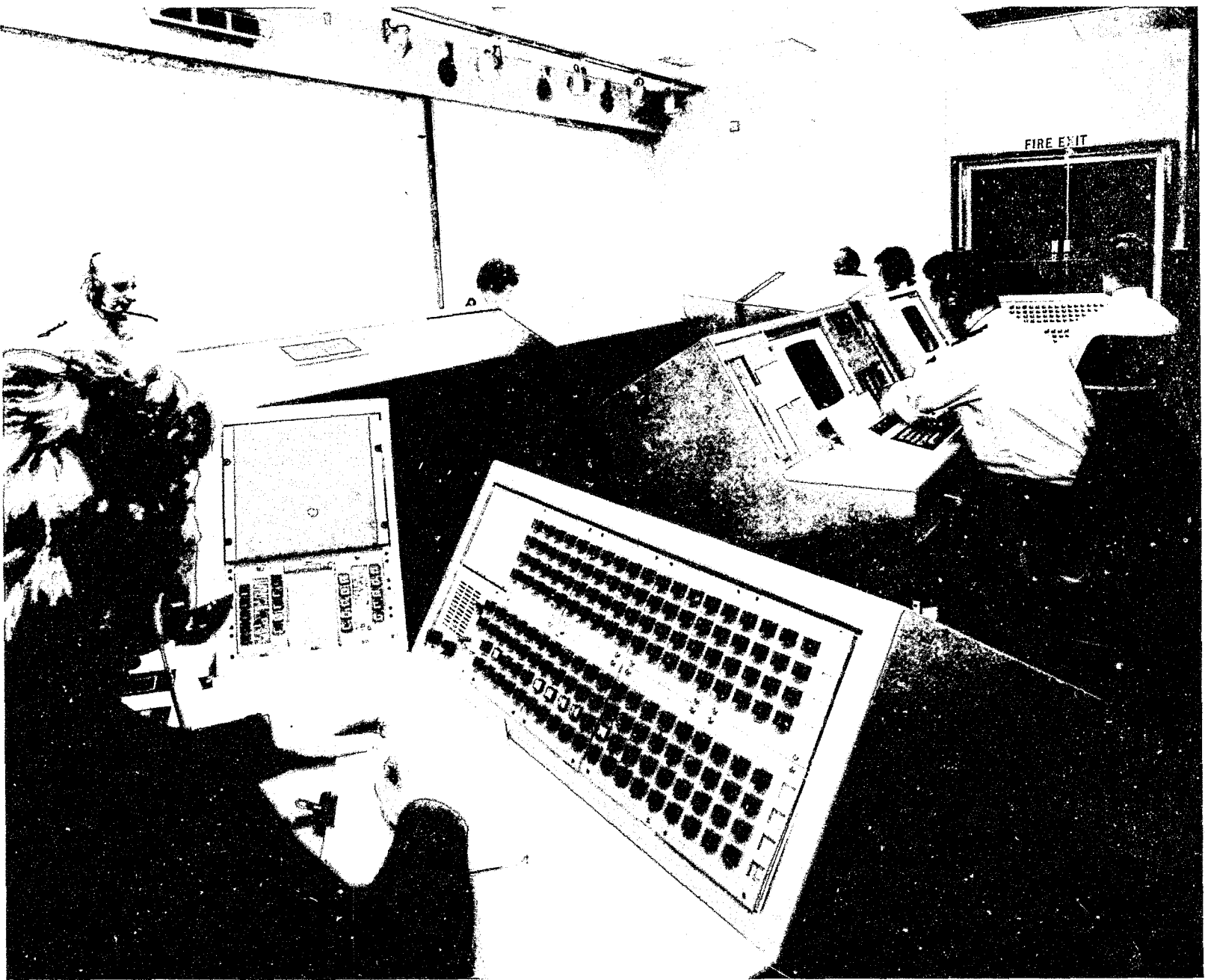
CODES ALLOCATED TO SECTIONS AND TERMINALS TO INCORPORATE POSSIBLE LOCATION CHANGES

TOTAL 25 TELEPRINTERS



TELEPRINTER NETWORK

Figure 7



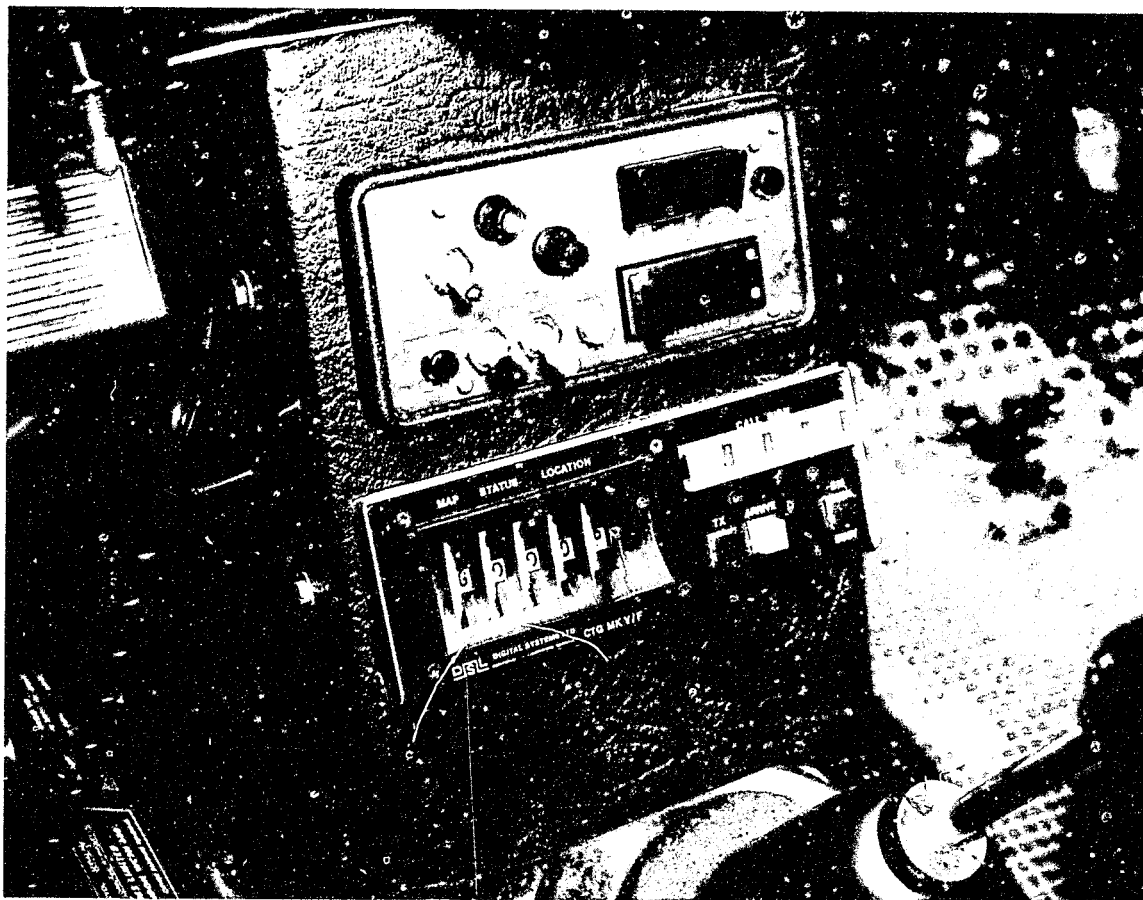
BOURNEMOUTH CONTROL ROOM

Figure 8

The principles of computerised message switching are also explained and demonstrated and some time is devoted to improving radio procedures which are vital to a good Command and Control system.

Detailed courses are provided for supervisors, VDU and teleprinter operators. Attainment of an acceptable standard is made a prerequisite for selection of staff for Control Room duties.

Training personnel comprise an Inspector with a staff of Sergeants. Terminal equipment includes eight VDUs with cassette recorders and two model 15 teleprinters. The training facilities at the MIS training wing at Poole are shown in Figure 10.



VEHICLE STATUS AND LOCATION EQUIPMENT Figure 9



FORCE TRAINING FACILITIES AT POOLE Figure 10

END