REVIEW OF NEW ZEALAND AMBULANCE OFFICER TRAINING

OCTOBER 1984

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To: Hon Dr M E R Bassett
The Minister of Health
Parliament Buildings
Wellington

In accordance with our engagement by the Minister of Health as consultants to undertake a review of New Zealand Ambulance Officer Training we have the honour to present to you our report.

R J Walton
H Offenberger

TABLE OF CONTENTS

1. TERMS OF REFERENCE

Mr R J Walton, C.M.G., O.B.E., Q.P.M., E.D., recently retired Commissioner of Police and Mr H Offenberger, M.Sc., formerly Head of School, Mathematics and Science, Wellington Polytechnic were engaged by the Minister of Health as consultants to undertake a review of the present ambulance officer training schemes provided at local, regional and national levels and to consider and report on:

1 What basic and post-basic training is desirable to meet the needs of the sick and injured, and the extent to which post-basic and refresher training should be provided to maintain patient care related skills.

2 Whether the same standards of training are necessary for volunteer and full-time officers.

3 The most appropriate means of providing the training including the resources required; and such other matters as may be considered relevant by the consultants.

2. SUMMARY OF RECOMMENDATIONS

2.1 QUALIFICATION AND TRAINING REQUIREMENTS (4.2)

It is recommended that:

A. The following qualification structure be introduced.

Qualification	Achieved By	
	Paid Officer	Volunteer
AMBULANCE SERVICE INDUCTION	Correspondence from NAOTS Examination set by NAOTS Full time commitment.	Same as paid officer except course to be completed in own time.
AMBULANCE OFFICER PROFICIENCY	Correspondence from NAOTS Local experience on road and hospital. Hands on training by Regional and Area Training Staff Complete as soon as possible. Regional testing as to achievement of standards.	Same as paid officer except course to be completed in own time. To undergo testing when considered competent.
INTERMEDIATE AID	Correspondence from NAOTS 2 weeks course at NAOTS 2 weeks hospital experience	Same as paid officer
ADVANCED AID	Correspondence from NAOTS 14 weeks course at NAOTS 5 weeks tuition 4 weeks hospital experience 4 weeks road experience 1 week examination at NAOTS The implementation of a correspondence course may well enable the 5 weeks residential tuition to be reduced.	Same as paid officer
REFRESHER TRAINING	Updating modules by correspondence from NAOTS Testing to endorse level of qualification.	Same as paid officer

B. The Training Committee review the qualifications required at each level having regard to the desire of some operators to have some skills taught at a lower level.

C. No restriction be placed on the number of staff who can qualify for Intermediate Aid other than their considered ability to fulfil the standards required by the qualification.

D. Sufficient Advanced Aid officer positions be authorised in order to provide a 24 hour service covering all major areas.

E. Consideration be given to the desirability of pre-course correspondence in Advanced Aid training so as to enable the five weeks residential tuition at NAOTS to be shortened.

F. Refresher training be carried out by regional/area staff, supported, if necessary, by correspondence from the NAOTS. Residential refresher courses should be conducted only in very exceptional circumstances.

G. Testing panels should adjudicate at least every three years whether officers have maintained their skills to a standard which allows them to continue practising at their level of qualification.

H. Having regard to the expense of training, operators should ensure that the number of volunteers undertaking training is in accord with the requirements of the Service.

I. Having regard to the expense of training, hospital boards should consider whether the use of qualified ambulance officers is warranted for transportation duties that are not medically essential.

2.2 TRAINING STRUCTURE TO MEET TRAINING REQUIREMENTS (4.3)

It is recommended that:

A. The Organisation structure as set out in APPENDIX "F" and detailed in the report be adopted.

B. Any statutory provision setting up an Ambulance Authority should provide for a Training Committee. The Training Committee should be composed of the Chairman and two Subcommittees - Protocols and Implementation.

C. Except for the Chairman the members of the Training Committee need not necessarily be members of the Ambulance Authority.

D. Regional Training Coordinators be appointed from the main operator in Auckland, Wellington, Christchurch and Dunedin, the employing authority retaining line command but the appointed officer to serve full time in a 'functional' capacity under the NAOTS for the fulfilment of the National Training Programme.

E. Operators be reimbursed the remuneration of Regional Training Coordinators whose pay should be set at a level that would not deter competent officers from seeking the appointment.

F. Area Training Officers be appointed by the main operator in the area and by arrangement, undertake duties in adjacent areas that have no major operator with full time staff in sufficient numbers to allocate a suitable officer to such a role.

G. All training staff carry out their function in the rank or qualification held in their employing authority. The Director Training and Commandant/ Chief Instructor at the NAOTS to remain in ranks now prescribed but remaining School staff to hold ranks or qualifications held in their field appointments.

2.3 TRAINING FACILITIES - CRITERIA (4.4)

It is recommended that:

A. A National Ambulance Officers' Training School should be continued.

B. The School should fit in the National Training Organisation as indicated in the Organisation chart APPENDIX "F".

C. The School should have an approved establishment of 5 instructors, 1 technician and 2 for administrative duties, excluding the Director Training and the 4 Regional Training Coordinators.

D. To attract competent full time staff from the ambulance service an instructor salary scale be established not implying the raising of rank.

E. Having regard to the key question in siting a NAOTS, being its ability to stand alone and the lower numbers who will be required to attend residential courses in the future, efforts should commence early to re-locate the School in new or more suitable existing premises.

F. The viability of the proposal by Auckland Centre Trust Board, for the construction of a new NAOTS at Mt Wellington, be the subject of an early evaluation before any other steps to re-locate the School are initiated.

2.4 USE OF EDUCATIONAL FACILITIES (4.5)

It is recommended that:

A. The NAOTS should take advantage of appropriate courses and lecture support available at educational facilities and share resources for the production of correspondence courses and learning aids.

2.5 FINANCIAL IMPLICATIONS (4.6)

It is recommended that:

A. Employing authorities be not reimbursed for the salary of staff undertaking the Induction course or refresher training but be reimbursed the pay of staff undertaking the Proficiency qualification and Intermediate and Advanced Aid courses.

B. Officers attending residential courses at the NAOTS should not suffer a loss of remuneration. They should be paid on the basis of what they would have received had they remained on field duty.

C. The proposal to implement a greater level of regional training will require a training budget for each region to allow the Coordinator and Area Training Officer to fulfil their roles which will require some travel and accommodation for themselves and students where centralised training is necessary.

3. DEPARTMENT OF HEALTH BACKGROUND TO REVIEW

3.1 INTRODUCTION TO BACKGROUND

This section has been prepared by the Department of Health at the request of the consultants. It provides background information which will be useful to readers of the Report. Last year the department was asked by the Ambulance Transport Advisory Board (ATAB) to arrange for a consultant to report on ambulance officer training. Seven years have elapsed since the National Ambulance Officers' Training School (NAOTS) was opened in Auckland and it is appropriate to consider the direction of national and regional training and whether changes to the existing programmes are necessary. For the year ended 31 March 1983 the amount spent by ambulance services in New Zealand was $15.399 million. This sum does not include capital expenditure on vehicles, equipment or buildings. $609,888 or nearly 4% of the $15.399 million was spent on national and regional training.

3.2 STRUCTURE OF AMBULANCE SERVICE

3.2.1 HOSPITAL BOARDS

Over 80% of ambulance service operating costs are met by hospital boards. The Hospitals Act 1957, Section 4(1)(c) provides that for the purposes of the Act and subject to the provisions thereof, it shall be the duty of every board - to make such provisions as the Minister from time to time thinks necessary for the reception, relief, care, treatment, isolation and removal to hospital or other place of persons who are suffering from injury or diseases ... etc.

This part of the Act has been interpreted generally to mean that hospital boards are responsible for the ambulance transport services in their areas.

Of the 29 hospital boards throughout the country, 15 provide some or all of the ambulance services in their own areas. The remaining hospital boards choose to subsidise organisations which provide that service on their behalf.

3.2.2 AMBULANCE OPERATORS - There are currently 74 autonomous ambulance operators recognised by the Ambulance Transport Advisory Board providing emergency services and ambulance transport for the communities they serve. They vary considerably in size from the large metropolitan operator operating a fleet of ambulances to the small rural volunteer services with a single vehicle.

In some areas there is only one operator serving the entire hospital board area, whilst in other areas there may be a number of different operators, including the Board itself, operating an ambulance service for a particular part of its area.

Four years ago the number of operators was 131, there are now 74. There is a gradual process of rationalisation and amalgamation of services and this is expected to continue.

Over 60% of the operators belong to the Order of St John. It is estimated that at least two-thirds of ambulance work in New Zealand is undertaken by St John services. Its Auckland service alone is responsible for one third of the total national case-load.

Staff are employed in all the metropolitan services and in some of the other larger services where the workload warrants their employment.

While 90% of all ambulance patients are transported by services employing full time staff the volunteer component is an essential feature of the New Zealand service. Many services depend wholly on volunteer coverage.

The following is a broad analysis of the composition of the ambulance service at the present time.

Type of Operator	Number of Services	Vehicles	Salaried Staff
Order of St John	45	229	299
Hospital Boards	15	83	59
*Citizens Groups	14	51	68
Training School	N/A	4	4
Totals	74	367	430

*"Citizens Groups" is a collective term for community organisations not included in the St John organisation. The largest such operator is the Wellington Free Ambulance Service.

3.2.3 AMBULANCE TRANSPORT ADVISORY BOARD (ATAB) - The ATAB was established by Government in July 1953, under what is now Section 13 of the Hospitals Act 1957.

Section 13(1) of the Hospitals Act states that for the purpose of assisting in the administration of this Act the Minister may from time to time appoint such advisory or technical committees as he thinks fit.

13(2) adds that every such committee shall have functions in relation to this Act as the Minister may from time to time determine.

The ATAB consists of thirteen representatives of the major organisations with an interest in ambulance transport. These are:

Department of Health (2) - one of whom is Chairman
Hospital Boards' Association
Hospital Superintendents' Association
Order of St John (2)
New Zealand Medical Association (NZMA)
Wellington Free Ambulance Service
Director of the Training School
Regional Coordinators (4)

While the ATAB is, by definition, simply an advisory body to the Minister of Health, over the years it has assumed an executive role and it has been able to formulate and implement a number of national standards. In the field of ambulance officer training it determines the curricula and standards required of the National Ambulance Officers' Training School in respect of courses leading to Department of Health qualifications.

However the ATAB has no power of direction over either ambulance operators or hospital boards. Until such time as legislation defines the powers, functions and responsibilities of the ambulance authority the ability of the ATAB to influence operators and promote improvements is limited.

3.2.4 DEPARTMENT OF HEALTH - The Division of Hospitals within the Department of Health exercises an overview of the ambulance service. Traditionally, the Chairman of the ATAB has been the Director or Deputy Director of the Division of Hospitals. There is a small Ambulance Services Section within the Division of Hospitals which is engaged in providing advice to operators and hospital boards on all aspects of the service. It also acts as the secretariat to the ATAB. In the area of training, the Ambulance Section monitors national and regional training and is responsible for the administration of the funds allocated for training.

3.3 TRAINING SYSTEMS ESTABLISHED PRIOR TO 1978

Prior to 1963 there were no nationally coordinated programmes of training. Each operator determined the level of training for its own employees. Clearly there was great scope for variation from one operator to the next, in fact it is doubtful if some personnel engaged in ambulance transport duties received any formal patient care training at all. In those days training was available from the following sources:

A. PUBLIC ORGANISATIONS - The Order of St John and the Red Cross Society have long been involved in providing public tuition in first aid, health and nursing subjects.

Many ambulance officers completed the St John or Red Cross first aid courses prior to their appointment as an ambulance driving officer. Often it was their only formal tuition. Nevertheless these courses provided the rudiments of sound patient care and the ambulance service has been well served by these organisations, despite a declining reliance on them now.

B. IN-SERVICE TRAINING - For many years the essence of ambulance officer training consisted of in-service tuition and work experience at the local level. Again, the extent of this training varied considerably between operators.

Of necessity all ambulance officers needed to receive some form of induction training before they could begin to perform their ambulance duties. Induction training could range from a brief informal familiarisation with the practical necessities of the job, to a formally structured induction course covering both theoretical and practical subjects. The latter was more likely to be found in the larger services employing full time ambulance officers.

Beyond induction training some operators implemented their own training programmes leading to local qualifications.

Again, there was little uniformity in the standards and qualifying criteria but they did represent attainment ambulance officers could strive for. Some of these local qualifications have been retained by the ambulance operators concerned, despite the more recent emergence of national qualifications.

Experience has long been acknowledged within the ambulance service as perhaps the best teacher of all. Local training often required prescribed lengths of service, including designated periods of in-hospital service in conjunction with formal assessments, before awarding the particular qualification.

3.3.1 DEPARTMENT OF HEALTH QUALIFICATION - In 1963 a national ambulance officers' qualification was established at the direction of the then Minister of Health. The syllabus was approved by the ATAB, while the operation of the scheme was administered by an Examination Board set up by the Priory of St John.

There were two grades of examination, these being Basic and Intermediate.

Up to the time that this qualification was superseded by national training at the National Ambulance Officers' Training School, some 280 certificates were issued. Support for the Department of Health qualifications initially came mainly from the smaller operators as some of the larger services continued their own individual programmes.

Certificates were awarded under the joint signatures of the Director-General of Health and the Chief Secretary of the Order of St John.

3.4 NATIONAL TRAINING

The first Telethon was held in 1975 and raised over $610,000 from the Auckland and Christchurch regions (the extent of TV2 coverage at that time), to enable the Order of St John to establish an ambulance officers' training institution.

Two thirds of the sum raised by Telethon was used to renovate and equip part of the St John ambulance station in Pitt Street for use as the National Ambulance Officers' Training School (NAOTS). The balance of the appeal funds is invested for future capital requirements.

Students on residential courses are provided with board and lodging free of charge to the student at the YMCA which is located across the road from the NAOTS. An entire floor has been reserved on a contract basis for this purpose. It currently costs the training budget approximately $100 per week per student.

3.4.1 AUCKLAND CENTRE TRUST BOARD

The NAOTS is administered for the ambulance service by the St John Ambulance Association (Auckland Centre) Trust Board and the staff of the NAOTS are employees of the Auckland Centre Trust Board.

In practice the NAOTS functions quite separately from other branches or departments of the Auckland Centre Trust Board. One effect of this is that the teaching staff it employs at the school are not eligible to apply as of right for vacancies in its Auckland ambulance transport service.

3.4.2 FUNDING

The operating costs of the NAOTS are fully met by the Department of Health. In addition the fares, accommodation and meals, and the wages of the students attending the school are paid to the Auckland Centre Trust Board. Payment is made from a Trust Fund established in 1978 under what is now Section 74 of the Accident Compensation Act 1982.

The amounts paid out of the Trust Fund for national and regional training are as follows:

Period Ending	Regional	School	Total
30 Sept 77 (six months)		9,036	9,036
30 Sept 78		210,934	210,934
30 Sept 79		365,134	365,134
30 Sept 80		460,450	460,450
30 Sept 81	61,879	537,780	599,659
31 Dec 81 (3 months)	16,370	142,265	158,635
31 Dec 82	60,346	549,343	609,689
31 Dec 83	55,891	483,570	539,461
31 Dec 84 (Budgeted)	56,973	537,220	594,193

Sixty four percent of the school expenditure relates to the reimbursement of wages, travel and accommodation costs of students attending the school.

The reasons why centrally funded training costs have diminished from their peak of two years ago is that basic level training for full time personnel has been fully met, so that only refresher and replacement requirements now continue, and expansions on post basic trainig have been curtailed until protocol and training reviews have been completed.

3.4.3 STAFFING

The approved staffing level for the NAOTS is:

1. A Director of Training
2. A Senior Instructor
3. Two Instructors (whose positions are currently vacant and are being filled in the interim by seconded relief instructors)
4. One full time secretary/typist
5. One part time clerk

One of the criteria for appointment is that applicants for instructors' positions must be qualified ambulance officers and possess their Instructor's Certificate.

3.4.4 COURSES

The NAOTS has gradually extended its range of courses in the seven years since it first began the formal basic training programme for ambulance officers.

Courses now offered are:

(1) Basic Ambulance Aid - This course consists of a six week continuous residential course for full time ambulance officers, or two three week sections in successive years for eligible volunteers. It is followed by 40 hours of structured in-hospital experience.

Having passed these requirements and completed twelve months of ambulance service, candidates are awarded the Department of Health's Basic Grade Certificate in Ambulance Aid.

All full time officers commence this course within the first few months of joining the ambulance service.

Volunteers are required to do a minimum of 400 hours duty annually to be eligible to attend.

(2) Intermediate Ambulance Aid - After completing the Basic Ambulance Aid Course ambulance officers are then eligible to undertake the Intermediate Ambulance Aid Course.

This consists of a correspondence phase lasting up to six months, followed by a two week residential course at the NAOTS. A further two weeks of structured in-hospital experience is then provided for students.

Intermediate Ambulance Aid builds on the subject matter covered in the Basic Grade course, principally by including treatment of acute asthmatic crises and hypovolaemia.

Most candidates for Intermediate Ambulance Aid are full time ambulance officers, although a small number of volunteers have also completed this course.

Having passed these requirements, candidates are awarded the Department of Health's Intermediate Grade Certificate in Ambulance Aid.

(3) Advanced Ambulance Aid - After three years satisfactory service and having met all other pre-entry criteria, candidates undertake a fourteen week course which consists of the following components -

5 weeks of classroom tuition as a residential course at the NAOTS.

4 weeks of structured in-hospital experience.

4 weeks of supervised in-service experience alongside another Advanced Aid Officer.

1 week back at the NAOTS for examinations.

The Advanced Ambulance Aid course is the highest level of patient care qualification available to ambulance officers. The syllabus covers a number of "invasive techniques" eg intra-venous cannulation and intra-venous therapy, drug administration, cardiac monitoring and defibrillation, endo-tracheal intubation, crico-thyroid puncture and chest decompression.

The course has been limited to full time staff because holders of the Advanced Aid Certificate need an on-going workload in pre-hospital emergency care to maintain their special skills.

Having passed the requirements of the course, candidates are awarded the Department of Health's Certificate in Advanced Ambulance Aid.

(4) Refresher Courses - All three grades of ambulance officer training involve a triennial one-week residential refresher course at the NAOTS. The purpose is to assess skill levels and reinforce earlier teaching, while at the same time providing an opportunity for new training at that level to be presented to the students.

(5) Supervision - Since 1979 the NAOTS has provided one week supervision courses for ambulance officers in, or aspiring to, supervisory positions. The tuition is given by visiting polytechnic instructors which, for the successful students, culminates in an elementary supervision certificate being awarded.

(6) Instructors' Course - Ambulance officers with a minimum of three years' full time service are eligible to undertake the three week instructors' courses run by the NAOTS. There is now a pool of instructors throughout the ambulance service who return to the School at regular intervals to fill School vacancies and to maintain their tutoring skills.

In the period since the NAOTS commenced its activities to 31 December 1983 the total number of staff and volunteers have been:

Permanent Staff

Basic Grade	6 weeks course - 2 week assessment (no longer available)	286 261	547
Basic Grade	Refresher		194
Intermediate Grade	(includes small number of volunteers)		101
Advanced Grade			76
Advanced Grade	Refresher		26
Supervision			62
Instructor			46
			1052

Volunteers

Basic Grade

(Originally 3 x 2 week stages)	A	358
	B	255
	C	192
(now 2 x 3 week stages)	A	51
		856

Student Numbers at NAOTS -	1978 -	383
	1979 -	300
	1980 -	327
	1981 -	322
	1982 -	300
	1983 -	275
		1907
Student weeks at NAOTS	1980 -	1044
	1981 -	973
	1982 -	970
	1983 -	807

The NAOTS is budgeted for 1,000 funded training weeks each year.

The noticeable decline in the utilisation of that provision during 1983 arose solely amongst the paid staff and was due to:

(1) the basic grade teaching requirement being already largely met; and

(2) limitations on post-basic grade courses pending a review of protocols and training.

3.5 REGIONAL TRAINING

3.5.1 HISTORY - There has been a need to supplement central training with regional training, - particularly for those volunteer ambulance officers who are unable or ineligible to attend residential courses at the NAOTS.

In 1980, the Minister of Health approved the appointment and funding provisions for a Regional Ambulance Training Officer to each of the four ATAB regions, centred at Auckland, Wellington, Christchurch and Dunedin.

There is no difference between the qualification standards required for regional training officers and NAOTS instructors.

An interim agreement was reached with the Auckland Centre Trust Board whereby regional training officers would be attached to the NAOTS, for administrative purposes.

This has worked well and has also readily enabled regional training officers to be rotated through the NAOTS. The Number One Regional Ambulance Training Officer is actually based at the NAOTS.

However there are only limited numbers of officers coming forward for appointment to regional training positions. Because of the lack of suitable applicants there has never been an appointment to Region Four. More recently the Number Two Regional Training Officer position has become vacant following the resignation of the original appointee.

The role of the regional training officers can be broadly defined into three areas.

One is the coordination and supervision at local level, on behalf of the Director of Training, of the in-hospital and in-service components of the Intermediate and Advanced Aid courses.

Another is the teaching of basic grade training to volunteer ambulance officers who are unable or ineligible to attend residential training courses at the NAOTS. Much of this training is provided in the form of weekend courses for volunteers. While the courses closely follows the same programme as the School, at present, they are not recognised for the Certificate in Basic Ambulance Aid. Regional training officers also provide follow-up tuition to individual ambulance officers whose performance at the NAOTS has indicated that such reinforcement is warranted.

The third broad function of regional training officers is to assist in the organisation and running of adequate in-service training programmes for ambulance operators who do not want to maintain programmes of their own.

3.5.2 ADMINISTRATION - Regional training officers are accountable to the Director of Training (NAOTS) for their activities. Regular reports are submitted to the Director and these help to maintain an awareness of the state of training within the service. An effective integration of national and regional training objectives can thus be established and progress towards achieving those goals readily monitored. While the Auckland Centre Trust Board administers the regional training budget and exercises a managerial overview, regional training officers work without day to day supervision and therefore exercise a delegated responsibility in making routine administrative decisions.

3.6 CONCERNS WITH PRESENT TRAINING

3.6.1 OPERATIONAL DEMANDS

Ambulance operators have the responsibility of meeting community expectations and, in emergencies, having properly trained staff or volunteers available at all times.

Training undertaken at the NAOTS requires an absence from work. These absences vary from one week for triennial Refresher courses, to fourteen weeks for the Advanced Ambulance Aid Course.

While operators accept the reality of training and that it will have some effect on operational staffing, the amount of time currently being spent by staff at the NAOTS is not going unquestioned.

Refresher training in particular is considered to be of doubtful value - not conceptually, but in the time consuming format in which it is currently structured.

3.6.2 STAFF DISLOCATIONS

All centralised training requires ambulance officers to be located away from home for one or more weeks at a time. While this may pose little difficulty for single people, it is often a more serious obstacle for married staff - particularly those with young families.

Volunteers seem to be especially disadvantaged in terms of their attainment of the Basic Ambulance Aid Certificate. The latitude which permits them to perform voluntary ambulance officer duties does not necessarily extend to three weeks absence at a time from their home or work.

3.6.3 CAREER ISOLATION

Career prospects for officers in all but the very few largest services are severely restricted. There is no national career structure which permits staff to transfer from one service to another and this is affecting the recruitment of national and regional instructors.

Instead of being able to transfer in and out of a training role with confidence, ambulance officers accepting national or regional instructors' appointments have to sever their links with the mainstream of the ambulance service and hope that they will be able to return to operational or administrative duties with an operator at some future date. The department is aware that two major services do not advertise promotional positions outside their own service. This impedes career development and requires early resolution by the ambulance service.

3.6.4 COSTS

Since the establishment of the NAOTS, ambulance operators have to a large extent, been relieved of their former obligations and costs for ambulance officer training, as the expenses of staff attending the school are all centrally funded - including travel, accommodation and wages.

The provision of refunding the costs associated with an officer's absence on training was seen in 1977 as the best means then of ensuring that staff and volunteers came forward to the NAOTS for training. It has certainly resulted in the initial objective of having all staff and many volunteers trained to the basic care level being achieved. However in terms of costs this accounts for over 60% of the training budget and it is a matter which requires further examination by operators and hospital boards.

3.6.5 POST BASIC PRACTICE - Both the Intermediate and Advanced levels of ambulance aid, but particularly the Advanced, teach clinical procedures which are of an invasive nature, eg intravenous drug and fluid therapies, endotracheal intubation, cardiac monitoring and defibrillation etc. Their purpose in the ambulance service is to bring a greater level of definitive care to the patient at the earliest opportunity. Ambulance officers trained to these levels are required to operate within clearly defined protocols and procedures which have been approved by the ATAB. Undeniably, patient benefit has been achieved at times through the improved care that such training has made possible.

The extension of the ambulance service into these areas of treatment has evolved in response to what was perceived as an unfilled need in pre-hospital emergency care. Pre-hospital emergency care is not a field in which a large number of medical practitioners have sought to be actively engaged.

However, in some parts of the country, teams of medical practitioners have organised themselves on a roster basis, as emergency call-out doctors to be alerted by the ambulance service to various pre-defined situations.

The emergence of post-basic procedures in the ambulance service has caused some division of medical opinion. There are some strong advocates for these developments and some very respected experts in their fields have been instrumental in helping the ambulance service to arrive at its present position. On the other hand, some view the extension of life supporting procedures into the ambulance service with some alarm.

In the vast majority of situations, there is a harmonious integrated team effort between doctors and ambulance officers working together in the interests of the patient.

The ATAB and NZMA have agreed on a set of guidelines covering the working relationship between ambulance officers and medical practitioners. The ATAB is also undertaking a review of its present protocols - both in terms of medical content and ambulance operating procedures.

3.6.6 VOLUNTEER LIMITATIONS - At present the qualification training of volunteers takes place, with the exception of in-hospital experience, at the NAOTS in Auckland. Comment has already been made on the practical difficulties that volunteers may face in being away from their home or work for these periods.

Volunteers are required to do a minimum of 400 hours ambulance duty each year to be eligible for NAOTS training.

In terms of a standard of care to the patient, the ATAB supports the principle of having at least one person in each ambulance crew trained to a basic grade level. It is necessary to ensure that a proportion of volunteers in those services operated by volunteers undertake and obtain the Certificate in Basic Ambulance Aid.

Only a few volunteers have been accepted for Intermediate Grade training at this stage as the ATAB has imposed a moratorium on any new post-basic programmes until the reviews have been completed.

Volunteer Ambulance Officers are unable to undertake the Advanced Ambulance Aid course as it is necessary to ensure that the higher skill levels imparted are maintained by practice and work volume. The restriction is not against volunteers as such, but the reality is that volunteers do not meet the workload requirement. Where there is sufficient workload the service invariably has full time staff.

3.6.7 INDUSTRIAL ASPECTS - There are a number of industrial matters which can be noted in any review of Ambulance Officer Training. These are:

1. STUDENT WAGES - There are five industrial awards for paid ambulance driving officers throughout New Zealand; the St John Ambulance Association (Auckland Centre) Trust Board, the Wellington Free Ambulance Service Inc., the St John Ambulance Association Christchurch Sub-Centre, the St John Ambulance Association Dunedin Sub-Centre, and a National Ambulance Driving Officers award covering the remaining officers throughout the country.

   There are some significant differences in their respective provisions.

   Originally the full cost to employers of the individual officer's wages while at the NAOTS, was reimbursed to the employing authority. In the case of Senior officers and in some areas where average earnings were paid, these amounts became quite considerable.

   For ease of administration and cost containment, the Department of Health subsequently initiated a scheme which reimbursed ambulance operators a fixed amount in respect of each student week. These were assessed on the award cost of replacing that person on the roster by a new entrant to the service - a situation the ambulance operator would be faced with if that officer left the service.

   This also covered most of the costs of additional staff which were employed by the Auckland and Wellington services, to allow for a constant number of staff to be released from the roster for training purposes.

   There are variations in the amounts being reimbursed to the employers under the five awards. This rate includes an allowance to cover other staff related costs such as ACC Levy, uniforms and superannuation.

		$ per student week
Currently these are:	Auckland	343.48
	Wellington	408.21
	Christchurch	260.71
	Dunedin	325.47
	National	262.40

Some employers elect to pay their employees average earnings during their period at the School.

All volunteers undertaking residential courses at the NAOTS are paid a grant of $150.00 per week through their ambulance operator, in recognition of the special difficulties they may face in managing such attendances.

2. SECONDED INSTRUCTOR WAGES - Full time instructors at the NAOTS are salaried personnel and not under award coverage.

Seconded instructors attached to the School for a period are likely to be driving officers whose conditions of employment are defined in the five awards. When they undertake periods of teaching, seconded instructors are not willing to be financially disadvantaged in respect of their normal earnings at their home base.

The department does not believe that operational duty provisions are applicable to a teaching role. It holds the view that people of similar qualifications working alongside each other undertaking the same task should be paid equally.

Therefore seconded instructors' pay rates should, subject to appropriate qualifications, be relative to the salaries of permanent instructors at the NAOTS.

3. INSTRUCTORS RANKS - The ambulance service is a uniformed service based on rank. Teaching is a non-operational role and it could therefore be argued that ranks at the school are inappropriate. However, students at the NAOTS wear their uniforms and it is appropriate that because of the nature of the service NAOTS staff should be provided with a uniform.

Similarly, regional training officers are in constant contact with operational personnel in the regions.

From wearing the uniform it is only a further step to assigning a rank level to instructors' positions.

The Director of Training at the NAOTS is ranked as a Chief Ambulance Officer. NAOTS and Regional Instructors are ranked as Senior Operations Officers.

In operational circles these ranks are considered to be too high. This in itself may not assist in allowing for an interchange of personnel. The union viewpoint is that they should not wear a rank which can be mistaken for an operational position at all. The department believes that officers recruited to the school should retain their existing rank during their period of employment as instructors.

4. LEVELS OF TRAINING REQUIRED - Ambulance work in the largest services tends to be recognisably tiered into emergency work and one or more levels of routine transport duties.

The skills required of ambulance officers at each level differ considerably. It could be argued that staff driving mini-buses of sitting patients do not even require a Basic Grade Certificate.

However, in many services it is usual to rotate staff through more than one type of duty, with the result that the demand for training is greater than would otherwise be necessary. It is doubtful whether highly qualified staff should be employed on routine ambulance transport duties unless this is part of the idle capacity of the emergency service.

The demand for, and cost of, training in excess of essential requirements becomes obvious under these circumstances.

Existing training policies limit the numbers of Intermediate and Advanced Aid Officers.

This is in line with the conclusion in the A O Dare Report "Ambulance Services in New Zealand" (P37) that no more than 50% of ambulance officers should be trained to post-basic level.

Any increase in the numbers completing the Intermediate and Advanced Aid courses will certainly increase the training budget. It will also have ongoing cost implications for hospital boards who are required to meet the increased costs of the employment of greater numbers of Intermediate and Advanced Aid Officers.

5. QUALIFICATION PAYMENTS - All but one of the five industrial awards for ambulance officers provide higher payments for officers who hold Department of Health qualifications obtained through the NAOTS. It is apparent that in the service as it is now operated, payment for the Basic Ambulance Aid qualification really amounts to additional monetary recognition of something which is a normal requirement for the job. Officers unable to reach this basic standard could arguably be considered unsuited to the role of ambulance officer.

Payments for the Intermediate and Advanced qualifications are at present linked to appointments to designated positions, although there is some dispute over this. Intermediate Aid positions are frequently confused with the old rank of Senior Ambulance Officer which was a position of responsibility, often with supervisory responsibility.

Payment ought to be related to a position. Qualifications enhance an applicant's prospects of obtaining higher positions and payment is made for the additional responsibilities which follow.

3.7 EVENTS LEADING TO THIS REVIEW

The suggestion of independent consultants to review the operation of the NAOTS had been raised within the department several years ago as a means of arbitrating over claims for increased teaching staff.

However issues wider than simply the NAOTS itself, notably medical objection from certain quarters to post-basic patient care, have made it appropriate to extend the scope of the review to include the total training spectrum of the ambulance service.

The following events are amongst the more salient developments which have culminated in the appointment by the Minister of Health of two independent consultants to report on the training needs of the ambulance service.

(1) The long running concern in some medical sectors over the extension of pre-hospital emergency techniques to personnel in the Ambulance Service, manifested itself in a campaign of correspondence to the department and the Minister of Health. A delegation from the National Committee on Emergency Care (NCOEC) met with the ATAB on 2 December 1982 to discuss these issues.

(The NCOEC is an advisory body established in 1974 under the auspices of the Accident Compensation Commission. The ATAB had used it as an approving body for the Intermediate Protocols and the Teaching Modules of the Advanced Aid Course.)

This was an attempt to overcome misunderstandings over each other's role and to try and resolve the deadlock that had developed between some medical practitioners and the ambulance service.

(2) On 3 March 1983 the ATAB resolved to undertake a re-examination and updating of the Intermediate and Advanced Aid programmes and that pending such review, Intermediate and Advanced programmes would be restricted to those areas already operating such programmes.

(3) Ambulance operators wishing to initiate post-basic programmes in their services objected to these constraints. Industrial objections to the perceived threat of limitations on training availability continued and were the subject of communications to the Minister of Health.

(4) On 8 September 1983 the ATAB resolved to ask the department to undertake a review of the ambulance officer training programme and to draw up the terms of reference in consultation with board members.

(5) The department agreed to the above request from the ATAB and over a period of several weeks, working in consultation with the State Services Commission, it developed the job descriptions, person specifications, objectives and duties that the consultants would be required to meet.

(6) On 24 February 1984 the Minister of Health approved the department's proposed outline of the training review and authorised an approach to be made to prospective consultants to determine their availability.

(7) On 7 May 1984 the Minister of Health formally approved and advised Messrs Walton and Offenberger of their appointments as consultants to review the training needs of the ambulance service.

(8) The consultancy is advised by a steering committee which comprises representation from the Departments of Health and Education. It is chaired by Dr A Sinclair, Director, Division of Hospitals, Department of Health.

(9) On 9 May 1984 the Department of Health issued a Circular Letter to a wide range of organisations with a possible interest in ambulance training. They were advised of the appointment of the two consultants and invited to make written submissions through a departmental Executive Officer, who was assigned as an administrative assistant, by 8 June 1984.

(10) The consultants commenced their review by mid June 1984.

4. THE CONSULTANTS' REPORT

4.1 INTRODUCTION AND OBSERVATIONS

By terms of reference this Review of the ambulance service in New Zealand was confined to the training aspects of the organisation. In arriving at the recommendations made the consultants were required to meet the training demands of the present service consisting of 431 paid officers, approximately 900 volunteers, a total of 1331 staff with 371 ambulances and other vehicles deployed under 74 operators. A schedule of the approved fleet and salaried ambulance officers appears in APPENDIX "A".

Several facets of the ambulance service and of St John are being reviewed at present. While changes in organisations and control may result, the recommendations in this report should hold good in virtually all circumstances, as the service will undoubtedly continue to be ably supported by volunteers and will be structured for operational purposes into regions and areas. The training concept is based on these assumptions.

The aim of this Review was to set up a national training concept that would enable ambulance staff to provide and support the highest standard of patient care in pre-hospital emergency situations throughout the country.

In preparing this Report the consultants have endeavoured to make their recommendations with only the salient factors in support. A deliberate effort has been made to keep the Report down to a minimum by avoiding the unnecessary elaboration of points which too often blunt a reader's view of the actual proposal. To dwell at length upon factors that speak for themselves in the ambulance service or to include a full appreciation leading to each proposal was considered unnecessary. Inevitably there is some repetition in the report.

Some of the recommendations may well be considered very wide. This situation stems from the time factor in carrying out the Review which precluded the in-depth study required in some areas to arrive at finite conclusions, such as exact numbers requiring training at Proficiency level through volunteer involvement and the effect on the staffing of the National Ambulance Officers' Training School (NAOTS).

In submissions received and during the course of discussions nationwide with interested parties, two major strongly held views emerged.

A. That a National Ambulance Officers' Training School be continued. The view was supported through the School having provided not only a very high national standard of specialised training, but also a national service image and unifying element very much valued by ambulance staff.

There was a strong feeling that ambulance officer training should not be taken over by an educational institution but there was an acceptance that advantage should be taken of such facilities and training programmes where they can be of benefit to ambulance service courses and training.

B. That volunteers were accepted as an integral part of the service. Training should be provided for them to a greater extent at or near their home locations as a means of enhancing training opportunities and improving standards of pre-hospital emergency care by volunteers.

Operators in major centres provide a first class service, arising from the professionalism of full time staff. In many areas the service is mainly if not wholly volunteer. Logically all volunteers cannot hope to achieve the standards obtained by paid officers. Because of civilian commitments it is not possible for them to give the time for lengthy absences from their location for training purposes. Nevertheless the dedication and determination of the volunteers can only be described as outstanding and impressive. The service they provide is indispensable without massive financial input through provision of paid staff.

In recommending a national training concept it became apparent that provision had to be made for all volunteers to achieve, more readily at least, the basic qualification so that patients outside metropolitan areas could expect a standard of care as near as possible to that provided for their city counterparts.

To assess qualification and training requirements of the ambulance service the consultants visited major centres and operators in many other areas. This made possible an appreciation of service needs ranging from a large unit of paid officers to a solely volunteer group in an isolated remote rural location. In each location visited, where possible the consultants had discussions with hospital boards, members of hospital staff, ambulance executives and ambulance crews. Lengthy discussions were held with the training

staff at the National Ambulance Officers' Training School and training officers of the two currently staffed regions. Others seen included many members of the medical profession, union delegates, Priory of St John, Auckland Centre Trust Board, and staffs of technical institutes, including the Technical Correspondence Institute. Every endeavour was made to gain information across the board from interested parties in furtherance of the aim of the Review.

Regrettably in the time available it was impossible to visit the whole service. However the written submissions received largely dwelt on the same points and expressed views similar to those heard in places visited.

Before commencing the survey interested parties were invited to make written submissions as to training requirements. The consultants want to express their appreciation for the submissions made which provided a very good base from which to approach their task.

A schedule of organisations and persons making submissions appears as APPENDIX "B".

A schedule of locations visited appears as APPENDIX "C".

A schedule of persons seen appears as APPENDIX "D".

A schedule of reports and papers studied by the Consultants in the course of the review appears as APPENDIX "E".

Frequently in discussions and in a number of submissions, organisational matters affecting operations were brought up. It needs pointing out that organisational matters unrelated to training are not within the terms of reference of this Review.

In a few areas it was found that members of the medical profession feared that ambulance officers, particularly if too highly qualified, could usurp the medical role. Some very vocal groups of general medical practitioners see their own involvement as an essential ingredient in providing prudent pre-hospital management of emergency patients. They felt that a member of their profession should be alerted by the ambulance service to enable them to attend all emergency calls, that ambulance training should be limited to ensure an ambulance officer could not impinge on their role. They considered that

the ability to provide assessment and diagnosis of emergency cases required formal medical training.

The ambulance service appears to accept fully that a doctor, if not present at a scene, should be called where there is any question that such professional attention is required. There did not appear to be any desire by the ambulance service to usurp the medical role. There are many calls where the services of a doctor are not required and it would be wasteful for a doctor to attend such incidents.

On the other hand occasions have arisen, though few in number, where an ambulance officer might well have called for medical assistance at the scene, or may have spent too long in pre-hospital attendance without medical advice. From what could be assessed, the ambulance service strikes a good general balance in fulfilling its role with full regard to patient needs.

A diversity of opinion on this issue will no doubt continue. The training concept recommended for ambulance officers in no way intends to, and has never been meant to, exclude the attendance of a doctor at the scene of an emergency in appropriate cases.

The consultants noted a difference in two major areas where members of the medical profession offered a support role to the ambulance service. One group demanded to be called to all emergency scenes while the other accepted the ambulance officer's judgement as to the requirement for its service. In the first area there was discontent because the ambulance service followed the principle of calling a doctor only in cases they considered necessary. This practice was followed in the second area with full acceptance by the doctors involved in the support team. Good rapport and liaison existed in this area. Obviously it is a matter of close cooperation to provide the best standard of pre-hospital care.

Ambulance training will no doubt continue to stress the limitations of ambulance officers to confine their activities in respect to patient care to those matters in which they are trained and refrain from diagnosis in advance of their level of knowledge.

If there is any doubt as to the need for advice or attention a doctor should be called. Accepting this principle, there is still a need for an ambulance officer to be more than a

carrier of patients in emergency situations. A doctor is not always available and in some cases may not be practised in using some life support equipment carried in ambulances.

The key question is therefore the standard to which ambulance officers should be trained.

Over recent years there have been changes in the perceived role of the ambulance officers in patient care, and of the part they play in the health team. The direction of this change is not so much related to the routine task of patient transport, but to the level of patient care in transport and in particular, to the role of the ambulance officer in emergency care.

Technological changes have made possible life saving procedures to be initiated at the scene of an emergency and to be continued while transporting patients. Advances in electronics technology have made it possible for an officer not only to be linked by radio to medical personnel but to transfer patient data, eg an electrocardiogram for analysis by a medical specialist while administering pre-hospital care.

THE AMBULANCE OFFICER WHEN CALLED TO AN EMERGENCY IS NO LONGER EXPECTED JUST TO "SCOOP UP" THE PATIENT, AND "RUN" TO THE NEAREST EMERGENCY UNIT, BUT TO EXERCISE PRUDENT PRE-HOSPITAL PATIENT MANAGEMENT. THIS MAY INCLUDE TRANSPORTING THE PATIENT TO THE APPROPRIATE HOSPITAL, NOT NECESSARILY THE NEAREST AT HAND. IN SHORT, THE AMBULANCE OFFICER HAS CHANGED TO A HIGHLY TRAINED TECHNICIAN.

The basis of ambulance officer training must at each level be prescribed by protocols/procedures up to which an officer must be trained and tested.

Protocols for intermediate and advanced care were developed by the NAOTS and approved by the ATAB. There was medical input and approval. Training for qualifications is based on officers being able to fulfil the protocols and passing tests by a medical panel in appropriate subjects to ensure they can efficiently and safely practise the required skills.

At present there is no defined protocol for the basic grade. At that level the NAOTS syllabus serves the purpose.

Many doctors who opposed the level of ambulance training were unaware of the existence of the protocols, the medical approval of each procedure or medical involvement in the testing of students.

It is not satisfactory that the NAOTS issue these protocols or procedures, and hence is seen to set national standards. We believe that this is a medical and not an educational matter and should be seen to be so.

It is the function of the NAOTS to train officers to ensure that they are capable of carrying out the prescribed procedures effectively and safely. It is not its function to prescribe them even if the prescriptions are subsequently endorsed by the medical profession.

The consultants appreciate the advice given by many members of the medical profession as to the requirements for ambulance officer training and also the guidance on this question provided by the Review Steering Committee chaired by Dr Sinclair.

The consultants were never in any doubt as to their own personal limitations in prescribing the protocols and procedures for ambulance officer training. This is a role for experts. Once the contents of the protocols are established a training structure must be able to implement the training requirements and the monitoring of standards. It is the training structure that the Review has concentrated upon.

A requirement for the future is a committee to set the protocols/procedures for each proposed level of qualification, to make changes when required and implement the training requirements. A recommendation is made later in the report for the establishment of a Training Committee.

The protocols arrived at in future may not vary greatly from the existing ones which appear to be generally accepted. A properly constituted body determining protocols will provide an accepted basis for ambulance officer training, remove grounds for objections to procedures that can be carried out by ambulance officers and ensure training keeps up with medical and technical developments.

At present some hospital boards train staff in additional skills, thereby deviating from national protocols. For any such departures from national protocols/procedures the operator must accept not only full responsibility for training, certification and maintenance of skills, but also for patient welfare.

To assess requirements in training, changes made by hospital boards which deviate from national protocols and procedures should be notified to the Training Committee, which could then initiate changes nationally if it considered them necessary.

4.2 QUALIFICATIONS AND TRAINING REQUIREMENTS

The consultants base their conclusions with respect to qualification requirements on the widely held principle that there should be no distinction between volunteer and salaried officers in the level of training or qualifications gained if appropriate to their function. Hundreds of emergencies are attended by volunteers, often in remote isolated areas. The quality of patient care depends on the level of their skills, yet many of them are not in a position to attend the NAOTS. In the interest of ensuring the best achievable patient care in all parts of the country, training needs to be brought to the volunteers, hence the emphasis on correspondence tuition.

4.2.1 PRESENT QUALIFICATIONS

Induction into the ambulance service is in the hands of the employing operator. Some induction courses provide a base for the recruit to commence field duty in company with a trained officer whilst others leave something to be desired.

It takes a minimum of twelve months after commencement of service before an officer can be awarded the Department of Health's Basic Grade Certificate in Ambulance Aid. During that first year of service for a salaried officer this entails attendance at a six weeks' residential course at the NAOTS and one week at a local hospital. For volunteers the six week course is split into two periods of three weeks each at the NAOTS followed by one week at a local hospital. Hence the only way for all ambulance officers to obtain their basic qualification is by attending a residential course at the NAOTS. It is noted that a number of volunteers apparently did not attend the final period of the course.

After a further period of experience an officer can undertake the course to attain an Intermediate Certificate in Ambulance Aid. This requires a pre-training correspondence course of NAOTS assignments, followed by a two weeks' residential course at the School and a period of two weeks at a local hospital. Present policy is to allow about half of the paid officer establishment to qualify at this level. One school of thought attributes this policy to a recommendation of the Dare Report whilst another attributes it to the understanding that qualifications are acknowledged by a pay increase.

The Intermediate Aid Certificate course presupposes completion of the Basic Grade. The correspondence phase takes about six months. Only a handful of volunteers have been able to complete the Intermediate Aid Certificate.

After three years of satisfactory service and having met all other pre-entry criteria, only paid officers are eligible to qualify further to the Advanced Grade Certificate in Ambulance Aid. The course consists of five weeks of classroom tuition at the NAOTS, followed by four weeks experience at a teaching hospital. Four weeks are then spent "on the road", supervised by an advanced aid officer. Finally students are brought back to the NAOTS for a week of examinations. A total of fourteen weeks is thus required for the training of these officers, who, according to present policy, are to fill 98 positions at that level. This number does not provide satisfactory coverage for the country, and even now, 23 of these positions are not filled.

Refresher training is given for each grade of officer once every three years. Courses are held at the NAOTS for one week without a requirement to requalify.

4.2.2 PROPOSED QUALIFICATIONS AND MODES OF TRAINING

A. INDUCTION COURSE

It is considered that all recruits, paid officers and volunteers require a nationally conducted Induction Course to cover those basic subjects recruits need for their indoctrination into ambulance duties. The Training Committee should ascertain the national requirements, and approve a suitable syllabus. A guide to such a syllabus may be the four week course designed for the Auckland service by the NAOTS, or a similar course of three weeks used by the Wellington service. This National Induction Course should be available by correspondence, supervised and supplemented by a training officer.

At the time of undertaking the National Induction Course the recruit can also complete the programme laid down by the operator, specifically dealing with "domestic" matters, such as administrative procedures, familiarisation with the local area and its facilities.

Salaried officers would presumably undergo induction full time, while volunteers could undertake studies as their private commitments allowed.

After recruits have succeeded in passing the National Induction Course test set by the NAOTS, and fulfilled the domestic induction requirements to the satisfaction of the operator, they could be provided with an acknowledgement that they are now considered qualified for operational duties, desirably accompanied by a higher qualified officer.

B. AMBULANCE OFFICERS PROFICIENCY CERTIFICATE

After the completion of the induction course, officers having satisfied the operator that they are ready and are able to proceed to the next higher stage of training, will undertake studies leading to the Ambulance Officers Proficiency Certificate. The course for this qualification should be available to paid officers and volunteers from the NAOTS by correspondence with oversight by the regional and area training staff, who would undertake the training in practical skills, and make arrangements for the clinical experience to be integrated with correspondence tuition. In locations where volunteers need to be supported in their training, weekend practical sessions may have to be run in a centre close to them, and weekend hospital attendance will have to be arranged by the regional and area staff.

Paid officers could be expected to complete the course as quickly as possible. It would be highly desirable for their employing authority to make available study facilities during down time in duty periods, or set aside rostered study time, if operations permit. Volunteers would be able to complete the course in accordance with their private commitments.

The course would, in general terms, follow the prescription of the present Basic Training course, but there is room for the Training Committee to review it. Judging by suggestions received, it may be desirable to include certain elements from the Intermediate Aid course such as the application of MAST.

On completion of the course students would be tested by regional testing panels. If in the tests they reach the required standard of knowledge, understanding and practical skills, they are awarded the Certificate of Proficiency and a qualification badge to be worn on their uniform.

C. INTERMEDIATE AID CERTIFICATE

When officers have had further experience and their Chief Ambulance Officer considers them fit to proceed to higher qualifications, they can then undertake the Intermediate Aid qualification.

The course leading to the Intermediate Aid Certificate would as at present be preceded by correspondence tuition of about six months' duration.

In many quarters it was considered that the gains in skills through attendance at the course were insufficient and that some techniques now taught only in the Advanced Aid course should be included.

Clearly, this needs the attention of the Training Committee when reviewing the prescription, particularly as it is considered that for paid officers attainment of the Intermediate Certificate should become the norm. If there is a change in Intermediate protocols these may well require an adjustment to the present two weeks' residential course. The two weeks' integrated experience at a local hospital should continue. Because of the high correspondence content of the course it is expected that volunteers will also be able to qualify.

D. ADVANCED AID CERTIFICATE

When a vacancy is available in the service for an Advanced Aid officer the most suitable officer with Intermediate Aid qualifications should be permitted to undertake Advanced Aid training. This course should proceed as at present but consideration should be given to the desirability of pre-course correspondence enabling the residential tuition at the NAOTS to be shortened.

E. THE THREE-TIER STRUCTURE

The Department of Health in its submissions advocates a two-tier qualification for ambulance officers.

The consultants favoured a three-tier system, Proficiency, Intermediate and Advanced because firstly, it is desired to upgrade the service as far as possible to the Intermediate grade in the interests of patient care; secondly, it provides an achievable aim for volunteers and thirdly, it creates a greater breadth of experience before an officer can achieve the ultimate qualification.

4.2.3 MAINTENANCE OF SKILLS

Skills achieved must be maintained. Some skills are used less frequently than others, some skills are used rarely, but when patient care demands it the officer must have them.

At present, refresher courses of one week, in essence about four and half days, are held at the NAOTS. This involves considerable travel and accommodation costs. The course purports to assess skill levels to reinforce earlier teaching and to present new training.

It is considered that refresher training conducted by area and regional staff can be more effective. Being close enough to be made aware of deficiencies or losses of skills when they are diagnosed, they can remedy these by reteaching without delay. When it is necessary to teach new techniques, new methods can be introduced without having to wait for three years for a refresher course. The area officer can disseminate the new skills more widely to all officers. The NAOTS can provide a special correspondence module to assist. Where necessary, Area Training Officers can be trained in the new skills by a short course at the NAOTS.

Testing panels would adjudicate at least every three years whether officers have maintained their skills to a standard which will allow them to continue practising at their level of qualification.

In the interests of patient care, the officers who fail to satisfy the panel that they have maintained their skill should be re-tested after six months. If they again fail to demonstrate the necessary standard they should then revert to the next lower level of qualification. When the Chief Ambulance Officer is satisfied that such officers have regained their skills through regional tuition and passed testing by the panel they can be reinstated to the higher qualification.

4.2.4 ELIGIBILITY FOR TRAINING

A volunteer should be permitted to proceed to attain the Proficiency Certificate if considered by the Chief Ambulance Officer to be competent and able to give the time required to play a viable part in the service. The present qualification of having served 400 hours a year on duty means very little. Having regard to the expense of training, operators should ensure that the number of volunteers undertaking training is in accord with the requirements of the service.

The present policy is for about half of the paid staff to train up to Intermediate Aid standard. It is considered that despite possible extra costs by

allowing all staff to achieve Intermediate Aid, the public would be more efficiently served through having higher qualified officers more widely available.

Authorisation is presently provided for 98 officers to qualify at Advanced Aid level. This figure is apparently arrived at on the basis of number of calls and case loading. It means that Auckland has a number of Life Support Units manned by advanced aid officers available 24 hours a day. In other major centres varying numbers of advanced aid officers are available, usually one or two, often none, resulting in somewhat of a gamble for patients in those centres as to the extent of treatment they will receive. It is considered that each metropolitan area should have the required number of advanced aid officers to provide a 24 hour availability of such a qualified officer, the number available depending on the population served. All major areas should have at least one advanced aid officer on duty or available 24 hours a day. Wherever an emergency occurs the patient is entitled to expect a highly qualified officer to attend, or give support as soon as possible if required.

The need to provide reasonable countrywide coverage of advanced aid officers requires to be considered by operators and the ATAB. It is considered such coverage should be available not only in all metropolitan centres but also in urban locations such as Whangarei, Hamilton, Gisborne, Napier, New Plymouth, Wanganui, Palmerston North, and Invercargill. To provide this level of service it is estimated that the total requirement may well be in the vicinity of 130 to 140 officers compared with 98 authorised at present. Whatever the need to achieve coverage, the number of officers should be trained accordingly.

4.2.5 ADVANTAGES OF CORRESPONDENCE COURSES

Since correspondence courses can be commenced at any time there is no waiting for scheduled classes at the School. Paid officers can qualify quickly, on the other hand volunteers can work on assignments in their own time at their own pace. There is no dislocation of staff and they are readily available in event of a major emergency.

If correspondence courses are further developed at the Intermediate and Advanced Aid level it could well mean cutting the length of time required at the NAOTS.

Correspondence with regional testing for the maintenance of skills will not only save costs but benefit employers operationally and staff in their domestic situations.

4.2.6 GENERAL

If at any stage a sufficient number of recruits are urgently awaiting Proficiency Certificate training at the same time, consideration could be given to holding a residential course at the NAOTS.

It may well be necessary on occasions to conduct special courses for training officers at the NAOTS to teach developments in patient care.

It is a matter of balanced approach to decide when residential courses are to be held at the School as opposed to training by correspondence under the oversight of regional and area staff.

4.2.7 UTILISATION OF QUALIFIED STAFF

Hospital boards should consider whether the use of qualified ambulance officers is warranted for transportation duties that are not medically essential.

An ambulance as a means of transport is expensive, and to man it with a qualified officer, whose skills are not required, makes it doubly costly. When costs of staff training are considered, the priorities should lie in the direction of the primary role of the service, namely its emergency function. In non-emergency situations there appears to be no reason why even untrained people, under the direction of the ambulance service if necessary, could not be used. In some settings it may be legitimate to use qualified ambulance manpower in down time, as long as the practice does not interfere with the primary role.

It is open to question whether minor administrative or other tasks not requiring the skills of front line personnel should be carried out FULL TIME by ambulance officers, for example a second controller in a control room. Again, hospital boards should consider if such positions could not be filled by other people not as expensively trained, without detriment to the emergency function of the Service.

When limited funds are available for training, the proper utilisation of highly skilled manpower is essential.

4.2.8 RECOMMENDATIONS ARISING FROM QUALIFICATION AND TRAINING REQUIREMENTS

It is recommended that:

A. The following qualification structure be introduced.

Qualification	Achieved By	
	Paid Officer	Volunteer
AMBULANCE SERVICE INDUCTION	Correspondence from NAOTS Examination set by NAOTS Full time commitment.	Same as paid officer except course to be completed in own time.
AMBULANCE OFFICER PROFICIENCY	Correspondence from NAOTS Local experience on road and hospital. Hands on training by Regional and Area Training Staff. Complete as soon as possible. Regional testing as to achievement of standards	Same as paid officer except course to be completed in own time. To undergo testing when considered competent.
INTERMEDIATE AID	Correspondence from NAOTS 2 weeks course at NAOTS 2 weeks hospital experience	Same as paid officer
ADVANCED AID	Correspondence from NAOTS 14 weeks course at NAOTS 5 weeks tuition 4 weeks hospital experience 4 weeks road experience 1 week examination at NAOTS The implementation of a correspondence course may well enable the 5 weeks residential tuition to be reduced.	Same as paid officer.
REFRESHER TRAINING	Updating modules by correspondence from NAOTS Testing to endorse level of qualification	Same as paid officer.

B. The Training Committee review the qualifications required at each level having regard to the desire of some operators to have some skills taught at a lower level.

C. No restriction be placed on the number of staff who can qualify for Intermediate Aid other than their considered ability to fulfil the standards required by the qualification.

D. Sufficient Advanced Aid officer positions be authorised in order to provide a 24 hour service covering all major areas.

E. Consideration be given to the desirability of pre-course correspondence in Advanced Aid training so as to enable the five weeks residential tuition at NAOTS to be shortened.

F. Refresher training be carried out by regional/area staff, supported, if necessary, by correspondence from the NAOTS. Residential refresher courses should be conducted only in very exceptional circumstances.

G. Testing panels adjudicate at least every three years whether officers have maintained their skills to a standard which allows them to continue practising at their level of qualification.

H. Having regard to the expense of training, operators should ensure that the number of volunteers undertaking training is in accord with the requirements of the Service.

I. Having regard to the expense of training, hospital boards should consider whether the use of qualified ambulance officers is warranted for transportation duties that are not medically essential.

4.3 TRAINING STRUCTURE TO MEET TRAINING REQUIREMENTS

A training organisation is dictated by the needs of the ambulance service to fulfil the prescribed protocols and procedures.

A recommended training organisation chart appears as APPENDIX "F".

4.3.1 TRAINING COMMITTEE

The Training Committee would be responsible to the ambulance authority. It would consist of two subcommittees because of their distinct separate

functions, one for advising on protocols and procedures and the other for advising on the implementation of training requirements.

The Training Committee would be chaired by a member of the ambulance authority, to convene, coordinate and, ex officio, attend meetings of the two subcommittees and report to the ambulance authority on their recommendations in the training area. It is recommended that except for the Chairman the members of the Training Committee need not necessarily be members of the ambulance authority.

The Protocol Subcommittee would have the function of establishing service needs and articulating these by establishing the content and level of protocols. It would impose safe limits on permissible operational activities of ambulance officers commensurate with their training at each level.

The Protocol Subcommittee would consist of:

Three medical advisers
A representative of the Chief Ambulance Officers.

This subcommittee would be sensitive to the continuing needs of the Service. Where local variations are authorised by hospital boards they should be referred to the subcommittee which may as a consequence initiate national changes in procedures and training.

The Implementation Subcommittee would have the function of translating the content and level of protocols determined by service needs into teachable course prescriptions. It would advise on developments of training programmes, training structure and resources needed to implement them. It would monitor national training.

The Implementation Subcommittee would consist of:

A representative of the Department of Health.
A representative of the Auckland Centre Trust Board - if the present arrangements continue.
A representative of the Chief Ambulance Officers.
The Director Training.
An educational adviser.
Any other representation to fulfil the objectives of the Subcommittee.

The Chairman would be required to guide both subcommittes on the practicability of their proposals and on the establishment of procedures to ensure that service demands are matched by training implementation to a standard satisfactory to patient needs and achievable by training.

4.3.2 DIRECTOR TRAINING

The Director Training could be described as the field officer for the Training Committee having the responsibility to that committee for implementation of training requirements and the general direction and oversight of the ambulance service national training.

The duties of the Director Training would be to:

1. Implement and generally oversee the national training programme and preparation of training budgets.

2. Oversee the NAOTS which would operate under the direct control of the Commandant/Chief Instructor.

   The Director Training should have no instructional or administrative functions relating to the school although he may be based there and give keynote lectures. His focus of attention should be on areas of need within the total national training programme.

3. Oversee correspondence training and its supplementation in regions to ensure needs are being met and standards maintained.

4. Be a member of the Implementation Subcommittee of the Training Committee.

5. Closely liaise with Regional Training Coordinators on training, testing requirements and budgeting.

6. Approve regional testing panels and oversee that standards are met.

7. Ensure all instructional staff are of required standard and are maintaining skills.

8. Maintain close rapport with Chief Ambulance Officers and employing authorities with whom training requirements and necessary remedial training for staff members should be discussed.

9. Ensure any deficiencies in training that the Director Training cannot remedy, are immediately brought to the attention of the Chairman, Training Committee.

4.3.3 REGIONAL TRAINING COORDINATORS

Under the proposed training programme a key role will be played by the four Regional Training Coordinators (RTCs) appointed from the main operator at Auckland, Wellington, Christchurch and Dunedin. It is suggested

they be designated Regional Training Coordinators because their primary function is to coordinate all training requirements in the region utilising the Area Training Officers rather than endeavouring to fill the entire training role themselves.

In the past some difficulty has been experienced in filling the positions of Regional Training Officers. They had to become School staff which required their resignation from their employing authority. Returning to field duty and continuing their career became a gamble since their positions could not be held open for them. To overcome these difficulties and to obtain suitable officers for all positions, it is recommended that such appointments be filled from the staff of the main operator in the region. Changes can then be made in the appointment without affecting career expectations.

The appointed officer would remain under the line command of the employing authority in matters of administration, discipline and availability in a major emergency. For all training purposes the RTC would come under the functional control of the Director Training through the NAOTS.

Not everybody readily understands the organisation principles of line and function. The 'functional' role is a matter of direction and control in a specific field, in this case the national training programme, but precludes the giving of command directives in such matters as discipline, rank and other administrative matters outside training which remain the prerogative of the 'line' command, the Chief Ambulance Officer. The assignment of staff to undertake training is a 'line' command function in that the Regional Training Coordinators cannot dictate staff commitments other than their own to fulfil their training functions.

In any event a chart and principles alone do not make a system work; it is the common objectives, attitudes, understanding, and dedication which already exist in the ambulance service. The structure calls for close liaison between the employing authorities and the Director Training in making appointments of officers who can capably fill the roles of Regional Training Coordinators.

The officers would carry out their duties in the ranks or qualifications they hold in the employing authorities in order to avoid any difficulties in returning to field duty. Their designation should suffice for training control.

As the Regional Training Coordinator would be virtually full time in the training role the employing authority would be reimbursed the remuneration. The financial

implications point to a need for adequate compensation to allow for any loss of penal and overtime and to acknowledge their additional expertise as instructors. The pay should be set at a level that would not deter a competent officer from seeking the appointment.

Operators would be required to provide office space and training facilities. The Coordinator would require a training budget to cater for travel and the expense incurred in providing regionalised training and testing. Budget needs would be determined in consultation with the Director Training and approved by the Training Committee.

The duties of a Regional Training Coordinator would be to:

1. Provide oversight of all national training in the region to ensure required standards of instruction and student results are achieved.

2. Ensure the maintenance of skills in the region and arrange any remedial action.

3. Arrange or liaise with Area Training Officers to provide correspondence courses and practical training needed in support of such courses.

4. Review correspondence assignments en route from the NAOTS to students after marking, in order to be able to act on comments to provide any student support. The NAOTS may request additional support for students and the RTC will take steps to comply.

5. Participate in training programmes to the degree overall training duties permit.

6. Keep the NAOTS informed of training requirements and deficiencies.

7. Assist the NAOTS staff in writing and updating correspondence assignments. The initial preparation of correspondence courses may well require a major commitment before they can be introduced.

8. Work in conjunction with the Director Training to arrange the necessary regional testing panels and their activities, and to send panel results to the NAOTS for notation, approval and forwarding to the certifying authority.

9. Keep the Chief Ambulance Officers in the region fully informed of staff training requirements, progress and deficiencies; also receive the Chief Ambulance Officers requests for staff training, in order that remedial action can be decided upon.

10. Liaise with educational institutions in the region to arrange for the sharing of resources.

11. Prepare regional training budgets.

A primary function of the RTCs would be in the field of quality control. Some people can adequately cope with theory but are unable to efficiently and effectively implement their knowledge in a practical manner, or because of lack of demand in emergency duties, lose skills.

Immediate supervisors are often prone to overlook such deficiencies in workmates and close associates, which, if they exist, should be detected by the RTC in discussion with supervisory staff and in refresher training. Remedial action can then be arranged such as road experience at a metropolitan station, clinical experience at a suitable hospital or other particular requirement. Quality control may not be readily acceptable by all but it is the key to a first class service.

The RTC, whilst fulfilling some lecture and practical training requirements will in the main work in conjunction with the Area Training Officer (ATO).

4.3.4 AREA TRAINING OFFICERS

Most major operators already have training appointments. It is only required to rearrange training in order that both national and domestic requirements can be met. It is recommended that each main operator appoint a training officer for their specific area. By arrangement the ATO may also cater for an adjacent operator with little or no full time staff. The intention is that the country as a whole is served by area training officers, particularly in remote localities where volunteer services operate. The ATO would remain under the line command of the employing authority. The time for training purposes that is required or can be made available to the ATO, would be a matter of consultation between the Director Training, the RTC and the Chief Ambulance Officer concerned.

The salary of the officer would remain the responsibility of the employing authority. Training expenses in the area would be a matter for consideration between the employing authority and the national Training Committee.

Whilst remaining under the line command of the employing operator in training matters the ATO would for training purposes be subject to the 'functional' control of the RTC.

The duties of the Area Training Officers would be to:

1. Liaise with the Regional Training Coordinator on fulfilling training requirements in their area of responsibility.

2. Arrange training support for staff engaged in correspondence courses, such as practical, hospital and road experience and give oversight to such training.

3. Be available to correspondence students to give advice on completing assignments.

4. Provide and give lectures as required to support training programmes.

5. Review correspondence course papers as to comments from NAOTS staff and implement required assistance.

6. In liaison with RTCs arrange testing panels for area students and oversee examinations.

7. Arrange with the Chief Ambulance Officer and hospital authorities to participate in or be advised on Ambulance Patient Care record reviews in order to detect training requirements.

8. Keep the Chief Ambulance Officer fully informed of training programmes in the area and the steps being taken to remedy any shortcomings in the maintenance of skills or the training programme.

9. Liaise with the educational institutions in the area to arrange for the sharing of resources.

10. Prepare an area training budget.

The Area Training Officers should undertake their duties in the rank or qualification they hold in their Service. The designation of Area Training Officer should suffice for training control.

The appointment of Regional Training Coordinators and Area Training Officers is of key importance and must be regarded as such by operators. It is not a matter of appointing someone readily available, or by seniority or personal desires alone. It is a matter of the best person for the job.

The length of time to be spent in the instructional field will vary according to the person appointed. Some people can lose their dedication to a particular function more quickly than others. Appointments should be for substantial periods, say two to four years, to give stability to training in a region or area. The

termination of the appointment of an officer giving satisfaction may well depend on the availability of a suitable replacement.

Instructing is an art that all do not possess despite their knowledge of a subject. All training staff should be specifically trained as instructors and in future it is desirable that advantage be taken of appropriate short courses in educational or other service organisations for this role if available.

Ambulance instructing staff would require only a short course in instructing techniques as they would already be conversant with ambulance skills.

Previous instructor courses of three weeks duration were held at the NAOTS. It is no reflection on the standards achieved that it is recommended that courses in other institutions be utilised. This will provide a breadth of experience beneficial to the service.

There appears no need to duplicate readily available facilities.

To implement the training concept, it may well be necessary for all regional and area training staff initially to attend the NAOTS for briefing and to assist in the preparation of correspondence courses. Area staff will be involved with the teaching of practical skills which has to mesh in with correspondence tuition.

4.3.5 RECOMMENDATIONS ARISING FROM TRAINING STRUCTURE TO MEET TRAINING REQUIREMENTS

It is recommended that:

A. The Organisation structure as set out in APPENDIX "F" and detailed in the report be adopted.

B. Any statutory provision setting up an Ambulance Authority should provide for a Training Committee. The Training Committee should be composed of the Chairman and two Subcommittees - Protocols and Implementation.

C. Except for the Chairman the members of the Training Committee need not necessarily be members of the Ambulance Authority.

D. Regional Training coordinators be appointed from the main operator in Auckland, Wellington, Christchurch and Dunedin, the employing authority retaining line command but the appointed officer to serve full time in a 'functional' capacity under the NAOTS for the fulfilment of the National Training Programme.

E. Operators be reimbursed the remuneration of Regional Training Coordinators whose pay should be set at a level that would not deter competent officers from seeking the appointment.

F. Area Training Officers be appointed by the main operator in the area and by arrangement, undertake duties in adjacent areas that have no major operator with full time staff in sufficient numbers to allocate a suitable officer to such a role.

G. All training staff carry out their function in the rank or qualification held in their employing authority. The Director Training and Commandant/ Chief Instructor at the NAOTS to remain in ranks now prescribed but remaining School staff to hold ranks or qualifications held in their field appointments.

4.4 TRAINING FACILITIES - CRITERIA

It is recommended that a National Ambulance Officers' Training School be continued.

It would be utilised for Intermediate and Advanced Aid residential courses and on occasions for briefing sessions of Regional and Area Training Staff. It would be the focal centre for induction, proficiency and refresher correspondence courses including pre-attendance assignments for intermediate and advanced aid courses.

It should contain a resource centre for the production of audio-visual aids to learning and teaching and should liaise with institutions having the capability to provide more technical backup for productions.

As mentioned in the Introduction, the present School received virtually unanimous support from ambulance staff and is seen as a focal centre for the ambulance service image. It allows concentration of instructional effort in a specialised service as is available to other emergency and public services such as the Police and Fire Service.

The consultants closely examined any possible advantage in placing the School within an educational structure. They formed the opinion that because of the specialised training required, its service nature, the desirability of retaining an independent image which aids in the maintenance of service morale and the availability of good instructing staff, that the NAOTS should retain its individual identity. Nevertheless it was considered that, wherever located, every advantage

should be taken of courses, facilities and resources in educational institutions in order to enhance the capability of the NAOTS.

4.4.1 SCHOOL STRUCTURE

The place of the School in the training structure and its role is indicated in the organisation chart APPENDIX "F".

The Commandant/Chief Instructor would be responsible for allocating amongst his school staff the portfolios to coordinate:

Residential courses
Correspondence course tuition
Resources for training support
Testing panel appointments and collation of results

The School would be required to carry out its own administration.

4.4.2 STAFFING

It is recommended that staffing at the School, excluding the Director Training and the 4 Regional Training Coordinators previously dealt with, be established at:

1 Commandant/Chief Instructor
4 Full time instructor equivalents
1 Full time technician equivalent
2 Full time administrative equivalents

The utilisation of staff must logically be flexible in that, on occasions all instructing staff may be engaged in preparing correspondence courses or marking scripts and at other times instructing residential courses at the School.

In assessing the number of instructors required, taking into account the supplanting of face to face tuition by correspondence, one needs to consider that during a period of transition it is best to work to instructor equivalents. The writing of correspondence courses is an activity which will not have to be repeated too often once the initial courses have been written.

Estimating the total number of assignments that have to be prepared and maintained by the school as 20, this would require up to two instructor equivalents for one year. The 20 assignments are made up as follows:

2 assignments to cover National Induction
8 assignments to cover the Proficiency qualification
6 assignments to precede the Intermediate course
4 assignments to precede the Advanced course

Once the assignments are written the work consists of marking scripts and corresponding with students. The assumption is that the bulk of the student load would come from volunteers at the Proficiency level, while other courses will be minor contributors, with an estimated total load of up to 4000 scripts annually, requiring 3.4 to 3.5 instructor equivalents.

A gradual phasing in of correspondence tuition would reduce the number of residential courses. However, some volunteers who have already gone through the first three weeks of their residential training may have to complete their second three weeks the same way.

Potentially, if the consultants' recommendations are accepted, 260 salaried officers would have to be trained to Intermediate Aid level and 63 at Advanced Aid level. In all, there would be a requirement for a total of about 60 teaching weeks in residential courses at the NAOTS. Spread over a period of three years, residential courses could continue at a rate of up to 20 per annum, requiring at most 0.5 to 0.75 instructor equivalents.

This estimate is in accord with the proposal that residential supervision, refresher, and instructor training be discontinued at the NAOTS. Some extra sessions, perhaps one a year, might serve the purpose of briefing regional or area training staff to effect coordination.

It is therefore estimated the School would be able to operate with up to four teaching instructor equivalents. It is envisaged that some of these equivalents would be used up by part time lecturers who assist at the School.

Overall the proposals recommended mean a reduction from 1000 student weeks per annum to approximately 300 to 400, depending on roll numbers. The cost of travel and accommodation would be substantially reduced but more students, particularly volunteers, would be served.

The Resources Coordinator/Technician would be an extra requirement as would be the Commandant/Chief Instructor bringing the total requirement for staffing at the School to six from which the coordinating portfolios would be allocated. It seems that at present the Director of the School carries an unreasonably heavy administrative and teaching load. The appointment of a Commandant/Chief Instructor, whose main responsibility should be administrative, is considered necessary. The absence of a technician to service equipment and teaching material puts an undue load on teaching staff. In other teaching institutions technician assistance is normal. With additional requirements for

the production of learning and teaching aids a technician becomes essential. It is not necessary for the technician to be an ambulance officer.

Difficulties have been experienced in providing teaching staff for the School. Present appointments in an authorised establishment of four are only the Director and the Chief Instructor. An officer is required to resign from an operator in order to take up the School post thereby losing the right of re-engagement with that operator.

Some schools of thought prefer the rotation of staff through instructional appointments so that up to date service experience is maintained. Rotation is well nigh impossible to implement under the present conditions of service.

To achieve rotation the School could be assigned to a major operator to be staffed, but administered under the Training Committee and Director Training. Such an arrangement whereby the School could lose its national identity, would not be acceptable to operators if indeed any operator alone had the capacity to provide the total instructing staff requirement.

The second proposal would be for employing authorities from around the country to provide instructional staff on contracts for at least two years. Then arises the question of housing and family dislocation and relevant costs. There is also the difficulty for the operator to fill the appointment during the officer's absence and yet hold it open for the officer at the end of the tour of duty. The availability of a suitable replacement for the School staff could be a further problem.

The present system to meet School staff shortages by seconding staff from around the country for three weeks at a time, is not in the best interests of instructional standards or of the instructor and students involved. Nevertheless it requires to be said that as the only alternative to fulfilling the instructional needs of the School an excellent job has been done by those involved. The release of staff for secondment interferes with operational requirements and presents a real difficulty. It is not a situation that should continue to exist.

The third proposal for staffing the school is to appoint full time staff with the prospects of obtaining field vacancies after two or three years' service. In many areas there has been a 'closed-door' policy to protect the career prospects of those remaining with the operator. There must be an understanding by operators and the union that it is in the interests of the service to have an efficiently staffed School with some rotation and therefore vacancies should be advertised whenever possible. This has occurred on a few occasions.

It must surely be in the interests of operators to have the benefit of revitalising their staff by competent and able newcomers with a wealth of experience.

A difficulty that has prevented a rotation of School staff has been the rank structure within the School. Outside of the appointment of the Director Training and the Commandant/Chief Instructor there does not appear to be any need for an advancement in rank above that held in the field. Observing this principle would aid the recycling of staff into operations after a period of service at the School, without any objection from the unions or officers.

It is recommended that to attract competent full time staff from the ambulance service an instructor salary scale be established, not implying the raising of rank.

At the New South Wales Academy training staff are full time and maintain their skills by periodic road and clinical experience. There is support for the view that a full time teaching appointee can be effective, provided skills are maintained, instructing being a specialised field. Instructors do have the benefit of hearing experts give lectures and receive feed back from field staff attending the School to keep abreast of developments.

Nevertheless, it is considered desirable for staff rotation to occur periodically to the degree circumstances allow. School staff should be encouraged after three or four years at the School to apply for field vacancies which, as previously pointed out, depend on the cooperation of all facets of the service.

If an appointment to the School extended beyond two years an officer would benefit from a period of practical experience as refresher training.

The recommendation in respect to staffing the School and the appointment of Regional Training Coordinators from operators' staff, raises the question of the future of the Region 1 and 3 Training Coordinators who are currently School staff. If acceptable they could continue as at present or be taken on to the staff of the main operator in the location in their training role, their salaries as Regional Training Coordinators coming from the training budget. If acceptable to the officers they could, as an interim measure, and until suitable vacancies occur, continue on the re-structured School staff. Both the officers have done a very good job and are to be commended for their dedication and achievements. They would be an asset to any operator.

4.4.3 LOCATION OF THE NAOTS

The key question in siting a NAOTS is its ability to stand alone and the low numbers who will attend residential courses in the future.

There are other matters which will require consideration, such as the provision of meals, accessibility to public transport, in-house recreational facilities and availability of finance.

The NAOTS is currently located in the Pitt Street premises with accommodation and meals being available at the nearby YMCA. The School premises were established in an old building with the proceeds of a Telethon being used to bring it up to standard. An acceptable contract was arranged with the YMCA for the accommodation and catering.

The present School has been an inspiration to the Service and has been instrumental in uplifting standards of patient care. Nevertheless the building is very old and facilities restricted accordingly.

It is desirable for more adequate and acceptable premises to be provided in the not too distant future and the consultants recommend that action be initiated now towards obtaining a new NAOTS. Whilst there were no complaints about the level of tuition, officers accepted the present location as somewhat make-shift.

Considerable criticism was voiced concerning the accommodation at the YMCA. It was considered below requirements for students. The noise level from the Central Fire Station immediately over the road, with an average of fourteen responses a night with all the accompanying cacophony was unacceptable. The standard of meals did not meet with general approbation.

The consultants consider that Auckland could remain the location of the NAOTS if suitable premises can be built or located. All desirable facilities are available in the area.

A future National Ambulance Officers' Training School requires:

A. Building and Equipment

(a) Adequate accommodation for staff
(b) Adequate accommodation for administrative facilities
(c) Two classrooms for 25-30
(d) Three areas for practical sessions
(e) Storage facilities for training equipment and materials
(f) Library
(g) Storage for correspondence assignments and despatch facilities
(h) Storage for teaching and learning aids
(i) Resource preparation area
(j) Ambulance vehicle housing

B. Student accommodation

(a) 25-30 single rooms
(b) Catering
(c) Recreational facilities

C. Training Support

(a) A teaching hospital with suitable facilities, patient flow and assured access nearby

(b) An educational institution (University, Technical Institute) nearby to provide specialist lectures in support subjects, anatomy, physiology, medical specialities, access to training materials and equipment in those institutions.

(c) Close access to facilities and specialist staff for the initial production of correspondence materials and major technical back-up.

(d) Close access to technical back-up for the production of learning and teaching aids.

The School, through service requirements, is not an establishment of such proportion that it can be free standing in the resource and in the catering fields. A major factor in siting the new School will be the provision of meals which will require either 'leaning' on another establishment, arranging a special contract, or flexible arrangements with hired staff. The requirement for meals will range from 12-30 at periods during the year with the remaining time requiring catering only for the staff. Under such circumstances it would not be a viable proposition to staff a cafeteria full time and any contract could well require considerable subsidisation with a consequent waste of finance. It should be noted that the total student occupancy is estimated as unlikely to exceed 20 weeks per annum in the next three years.

The Auckland Centre Trust Board have plans for a new National School. The concept would provide the organisation with an excellent training complex of which they could be justifiably proud, enhancing their image and boosting morale.

The viability of the proposal requires an early in-depth study before any other steps to re-locate the School are initiated. The Auckland Centre Trust Board proposal appears to meet virtually all the criteria outlined but raises the key question of its ability to stand alone.

Once the Auckland Centre Trust Board proposal has been researched the results can then be compared with the availability of existing premises as to suitability, cost, provision of finance and availability of support facilities.

Unless existing premises adequately fulfilling the criteria for the School are then found readily available in another acceptable location, early endeavour should be made to re-establish the School in Auckland.

No further capital works finance should be expended on the Pitt Street premises until any cost benefit arising from the future siting of the School has been determined.

In any event, wherever located, the NAOTS should retain its own identity.

4.4.4 RECOMMENDATIONS ARISING FROM TRAINING FACILITIES - CRITERIA

It is recommended that:

A. A National Ambulance Officers' Training School should be continued.

B. The School should fit in the National Training Organisation as indicated in the Organisation chart APPENDIX "F".

C. The School should have an approved establishment of 5 instructors, 1 technician and 2 for administrative duties, excluding the Director Training and the 4 Regional Training Coordinators.

D. To attract competent full-time staff from the ambulance service an instructor salary scale be established not implying the raising of rank.

E. Having regard to the key question in siting a NAOTS being its ability to stand alone and the low numbers who will be required to attend residential courses in the future, efforts should commence early to re-locate the School in new or more suitable existing premises.

F. The viability of the proposal by Auckland Centre Trust Board, for the construction of a new NAOTS at Mt Wellington, be the subject of an early evaluation before any other steps to re-locate the School are initiated.

4.5 USE OF EDUCATIONAL FACILITIES

4.5.1 SUPERVISION/MANAGEMENT COURSES

For officers wishing to take supervision/management courses, the technical institute system provides a large variety either locally in technical institutes or community colleges, or by correspondence. Such courses should not constitute part of the School's teaching programme. As it is, the tuition in these subjects at the NAOTS is provided by a lecturer from a technical institute.

4.5.2 INSTRUCTIONAL SKILLS

Instructional skills are non-specific. Their teaching is provided by other institutions and services. Use should be made of specialists in instructional techniques. For correspondence tuition skills, short secondment to teaching institutions which specialise in education at a distance, eg Massey University, TCI or the Education Department Correspondence School may be appropriate.

4.5.3 SHARING OF RESOURCES

It is difficult to see how the School can efficiently continue without the sharing of resources. It is too small a unit to become self-sufficient in both equipment and staffing for the production of correspondence courses and learning aids. Auckland has other teaching institutions with resources and facilities able to assist.

Regional and Area Training staff could gain access to educational facilities in the local areas where resources could be shared. The system of technical institutes, community colleges and high schools spans the country. Schools of nursing have many resources they use in their teaching which need not be duplicated. High schools have biological charts, models and laboratories, resources which could be tapped. Local specialist staff could be brought in as a teaching resource. The same applies to teaching hospitals.

4.5.4 RECOMMENDATION ARISING FROM USE OF EDUCATIONAL FACILITIES

It is recommended that:

A. The NAOTS should take advantage of appropriate courses and lecture support available at educational facilities and share resources for the production of correspondence courses and learning aids.

4.6 FINANCIAL IMPLICATIONS

In the present economic climate the implications arising from any recommendations that involve increased costs are appreciated. Recommendations involving any increases are made through necessity in the interests of an effective service and its important role to the public.

The recommendation to conduct the Proficiency qualification and refresher training by correspondence and local training in place of the present six weeks residential course at Auckland will go some distance towards offsetting the costs of other proposals made, requiring greater financial input. Any training programme must inevitably remain within the budget that is allocated.

The present authorised establishment of the NAOTS is 8 including the Director Training, 1 Chief Instructor, 2 Instructors and 4 Regional Training Officers. Although recommended that the Regional Training Coordinators be appointed from the major operator in the region, the costs remain within the training budget. The recommended staffing for the School of up to 6 is in effect an overall increase of up to 3 in the national training staff.

Considerable difficulty will continue to be experienced if it is expected to obtain School instructional staff at an unattractive rate of pay. Despite the dedication existing in the service it is too much to expect staff to forego substantial remuneration just to serve at the NAOTS. In any event the expertise required in the instructional role should be acknowledged.

Regional Training staff should be paid an allowance at least equating their salary with that of an officer of equivalent qualification in their location.

It is recommended that employing authorities not be reimbursed for the salary of staff undertaking the Induction course or refresher training but be reimbursed the pay of staff undertaking the Proficiency qualification and attending the Intermediate and Advanced Aid courses. This recommendation is made to encourage employing authorities to develop the level of staff qualifications which is in the ultimate interest of patient care.

Staff attending courses at the School should not suffer a loss of remuneration. They should be paid on the basis of what they would have received had they remained on field duty. There is an argument that the obtaining of higher qualifications is an advantage to the officer which should cause any financial loss to be

overlooked. Higher qualifications are also an advantage to the operator and certainly to the patient. In one known instance an officer attending the Advanced Aid course suffered a loss of $2000 in take home pay for the period he was attending the course, ie fourteen weeks. Whilst some officers may perhaps accept such a situation in their dedication to improve personal skills, it is not an encouragement to staff to seek higher qualifications. It is therefore recommended that officers attending courses at the School be paid the average salary that they could have reasonably expected to have earned had they remained on field duty.

The proposal to implement a greater level of regional training will require a training budget for each region to allow the Coordinator and Area Training Officer to fulfil their roles which will require some travel and accommodation for themselves and students where centralised training is necessary. The budget could be set by the ambulance authority after an assessment of requirements by the Director Training and the Training Committee.

The recommendation that all officers be permitted to progress to the Intermediate Aid qualification, and that 30-40 additional appointments at Advanced Aid level be made to ensure a 24 hour service in metropolitan or the larger urban areas, constitutes a cost factor balanced by the overall proposals.

Training by correspondence has a cost effect and as previously emphasised, oversight is required of the numbers of volunteers who undertake national training to ensure that numbers do not exceed the requirement of the service.

4.6.1 RECOMMENDATIONS ARISING FROM FINANCIAL IMPLICATIONS

It is recommended that:

A. Employing authorities be not reimbursed for the salary of staff undertaking the Induction course or refresher training but be reimbursed the pay of staff undertaking the Proficiency qualification and Intermediate and Advanced Aid courses.

B. Officers attending residential courses at the NAOTS should not suffer a loss of remuneration. They should be paid on the basis of what they would have received had they remained on field duty.

C. The proposal to implement a greater level of regional training will require a training budget for each region to allow the Coordinator and Area

Training Officer to fulfil their roles which will require some travel and accommodation for themselves and students where centralised training is necessary.

4.7 FUTURE DEVELOPMENTS

There are a number of matters that should be considered in the future:

4.7.1 RECOGNITION OF QUALIFICATIONS

Since ambulance officers through the level of their training and their jobs have developed into technicians, it will be appropriate in future to have their qualifications validated by the Authority for Advanced Vocational Awards (AAVA). This would help to establish their status in the comprehensive health team.

The following equivalences are approximate:

Certificate	Validated as	Approximate Equivalence
Proficiency	AAVA Ordinary National Certificate	Technicians' Certificate
Intermediate Aid	AAVA National Certificate	Stage IV NZ Certificate
Advanced Aid	AAVA Advanced National Certificate	NZ Certificate

4.7.2 AFFILIATION WITH HEALTH CARE EDUCATION

In keeping with training developments in the health care field it may be advisable for the NAOTS to come in much closer contact with other staff and students in that area. It is imperative for the NAOTS to retain its identity. If this condition is met it could become part of a Technical Institute which trains nurses or has some other school specialising in health service training. This would give it full access to both technical resources and some expert teaching. The control of, and the bulk of teaching, as now, would have to be done by experienced ambulance officers. Technical Institute regulations entitle its tutors to return to industry for the purpose of keeping up to the mark.

4.7.3 DIPLOMA IN HEALTH ADMINISTRATION

As part of their own development as senior health administrators, Chief Ambulance Officers should seriously consider undertaking the Diploma in Health

Administration. Not only will this provide a relevant input for Chief Ambulance Officers, who like other health administrators are responsible for maintaining a 24 hour service, but it will also provide a very necessary forum for the exchange of views and an increase in the understanding of the roles of all senior health administrators.

4.7.4 TUITION HOURS

The School has been forced to teach students for about 40 hours per week. While not ideal, this pace can be sustained for very short periods, a week perhaps. On longer courses a reduction of the school week to 30 hours would be more effective educationally. The material to be covered in lectures could be reduced by increasing the pre-course correspondence tuition.

4.7.5 VOCATIONAL AND EDUCATIONAL RESEARCH

There is a place for both vocational and educational research dealing specifically with ambulance officers, their work and training. There are many strongly held opinions, for example, on the reasons for the loss of skills, but no objective assessment of the problem. The universities or the NZ Council for Educational Research may become interested.

4.7.6 ELEMENTARY CLINICAL BIOCHEMISTRY

To enhance understanding, consideration should be given by the Training Committee to the introduction of elementary clinical biochemistry in addition to the traditional anatomy/physiology content of courses. This would be in line with nursing education.

4.7.7 CONDITIONS OF SERVICE

It is considered that the present system appearing to provide major pay increments on the achievement of qualifications is not in the best interest of patient care. There is a communication from the unions that, in terms of the awards there is no major payment made for qualifications. From other submissions received various interpretations can be placed on this issue. It does appear however that some restrictions exist based on cost of the number permitted to obtain higher qualification.

The overall effectiveness of the ambulance service as a true emergency service is impaired to the detriment of patient care if training to the highest level is restricted because of cost. It is therefore desirable to remove any impediment due to cost which restricts officers from achieving the highest qualifications.

The Service could well benefit with an overall review of conditions of service in an endeavour to place pay increments solely on the basis of length of service and appointment to authorised positions. The achievement of skill level, like in other services, should be acknowledged by nominal allowances only.

There is also the problem that arises from having five awards applying within the Service. This leads to a number of anomalies in remuneration for officers undertaking training.

At present the existing diversity of awards largely impedes staff movement which cannot take place readily as long as there is no national Service unified, not only by national training but also by national conditions of work and pay scales. The desirability for some staff rotation has already been expressed.

The consultants enter into this sensitive industrial area primarily in the interests of patient care, accepting that any change is made in consultation with all parties involved.

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The Consultants wish to thank all those who assisted them in their investigations:

The Steering Committee, consisting of Dr A Sinclair (Chairman) and Messrs T Grant, H Hutchinson and I Ross, who advised them on their itinerary and with whom they conferred from time to time on administrative and factual matters.

Mrs E M B Moles who very ably coordinated all administrative arrangements to assist in the investigation.

Those interested parties, individuals and organisations, who made written submissions and to all those visited who cooperated enthusiastically in providing the consultants with the information without which this Report could not have been written.

APPENDICES

APPENDIX A

JULY 1984

AMBULANCE TRANSPORT ADVISORY BOARD

SCHEDULE OF APPROVED AMBULANCE SERVICES AND EXISTING FLEETS

HOSPITAL BOARD DISTRICT	APPROVED AMBULANCE TRANSPORT OPERATORS	AMBULANCES	OTHER	TOTAL	SALARIED AMBULANCE OFFICERS
NORTHLAND	St John, Whangarei	20	1 Control	21	8
AUCKLAND	St John, Auckland Centre	44	5 Control 5 Busettes 1 Maintenance 1 Stores	56	161
	Trust Board				
THAMES	Thames Hospital Ambulance Operators Board	11		11	1
WAIKATO	St John, Ambulance Transport Management Committee	45		45	41
TAUMARANUI	Tongariro National Park Board		1 Rescue	1	
	St John, Taumaranui Subcentre	2		2	
	Oharu District Ambulance Committee	1		1	
TAURANGA	St John, Bay of Plenty Centre	1		1	
	St John, Tauranga Subcentre	4		4	4
	St John, Kati Kati Subcentre	1		1	
	St John, Mt Maunganui Subcentre	2		2	
	St John, Te Puke Subcentre	1		1	
BAY OF PLENTY	Bay of Plenty Hospital Board	5		5	1
	St John, Kawerau Subcentre	2		2	
	St John, Murapara Subcentre	2		2	
WAIAPU	Waiapu Hospital Board	1		1	
	St John, Ruatoria Subcentre	1		1	
COOK	St John, Gisborne Subcentre	3	1 Wheelchair 1 Transfer	5	6
	Te Karaka Volunteer Ambulance Service	1		1	
HAWKES BAY	Hawkes Bay St John Ambulance Service	9	1 Control	10	10
WAIPAWA	Waipawa Hospital Board	2	2 Wheelchair	4	1
	Porangahau and District Ambulance Service	1		1	

JULY 1984

DANNEVIRKE	Dannevirke Hospital Board	2		2	
	Woodville Free Ambulance	1		1	
	Akitio Ambulance Service	1		1	
TARANAKI	Taranaki Hospital Board	7	1 Control	8	5
	St John, Opunake Subcentre	1		1	
WANGANUI	Wanganui Hospital Board	12		12	5
PALMERSTON NORTH	Palmerston North hospital Board	8		8	16
	St John, Feilding Subcentre	2		2	
WAIRARAPA	Wairarapa Hospital Board	5		5	4
	St,John, Carterton Subcentre	1		1	
	St John, Martinborough Subcentre	1		1	
	St John, Featherston Subcentre	1		1	
	St John, Eketahuna Subcentre	1		1	
WELLINGTON	Wellington Free Ambulance Service	22	3 Control 1 Rescue 1 Maintenance	27	65
MARLBOROUGH	Marlborough Hospital Board	3	1 Control	4	2
	Havelock Community Council	1		1	
NELSON	Nelson Hospital Board	5		5	4
	St John, Motueka Subcentre	1		1	
WEST COAST	West Coast Hospital Board	14		14	1
	Grey Valley Association	1		1	
	St John, Hari Hari Subcentre	1		1	
CANTERBURY	St John, Christchurch Subcentre	12	2 Control	14	40
	St John, Amuri Subcente	1		1	1
	St John, Ceviot Subcentre	1		1	
	St John, Ellesmere Subcentre	1		1	
	St John, Kaikoura Subcentre	2		2	
	St John, Lyttelton Subcentre	2		2	
	St John, Rangiora Subcentre	2		2	1
	St John, Malvern Subcentre	1		1	
SOUTH CANTERBURY	St John, Timaru Subcentre	4	1 Wheelchair 1 Transfer	6	3
	St John, McKenzie Subcentre	2		2	
	St John, Temuka Subcentre	1		1	
	St John, Geraldine Subcentre	1		1	
	St John, Waimate Subcentre	2		2	

JULY 198

ASHBURTON	Ashburton Hospital Board	2	1 Wheelchair	3	4
WAITAKI	St John, Oamaru Subcentre	2	2 Transfer	4	2
	St John, Upper Waitaki Subcentre	1		1	
MANIOTOTO	Maniototo Hospital Board	2		2	
VINCENT	St John, Vincent Subcentre	4	1 Transfer	5	2
OTAGO	St John, Dunedin Subcentre	6	1 Control 1 Rescue 1 Wheelchair	9	21
	St John, Roxburgh Subcentre	1		1	
	St John, Taieri Subcentre	1		1	
	st John, Lawrence Subcentre	1		1	
	St John, West Otago Subcentre	1		1	
	St John, Otago Centre	1	1 Control	2	
SOUTH OTAGO	South Otago Hospital Board	2		2	1
	St John, Milton Bruce Subcentre	1		1	
	St John, Catlins Subcentre	1		1	
SOUTHLAND	Southland Hospital Board	9	1 Control 1 Rescue	11	16
	Fiordland Volunteer Ambulance	2		2	
	Nightcaps Ohai & District Ambulance Association	1		1	
	Lions Club of Tuatapere and District	1		1	
	Southern Districts Ambulance Society	1		1	
	St John, Otautau Subcentre	1		1	
	St John, Bluff Subcentre	1		1	
	St John, Gore subcentre	1		1	1
	St John, Upper Clutha Subcentre	1		1	
	St John, Mataura Subcentre	1		1	
	Training School	1	3 Control	4	4

ANALYSIS

45 ST JOHN OPERATORS	203	27	230	301
15 HOSPITAL OPERATORS	79	7	86	59
14 CITIZEN OPERATORS	45	6	51	67
TRAINING SCHOOL	1	3	4	4
TOTALS	328	43	371	431

APPENDIX B

ORGANISATIONS AND PERSONS MAKING SUBMISSIONS

Submissions were received from:

Ashburton Hospital Board
Auckland Hospital Board
Mr J R Ayers - Wellington Hospital Board
Bay of Plenty Hospital Board
Dr F E Bennett - National Committee on Emergency Care
Department of Health
Dr M Fahey
Dr R Fairgray - Canterbury Hospital Board
Mr R A Goodwin
Dr D Hay - National Heart Foundation
Dr A L Honeyman - Auckland Hospital Board
Hospital Boards' Association of New Zealand
Mr B Howell
Mr J Judson - Auckland Hospital
Dr P Leslie - Wellington Hospital
Marlborough Hospital Board
Medical Superintendents' Association of New Zealand
Nelson Hospital Board
New Zealand Medical Association
New Zealand Nurses' Association
New Zealand Nurses' Association (A & E Section, Auckland)
New Zealand Road Transport & Motor & Horse Drivers and their Assistants Industrial Association of Workers
Mr B Nielson
Nightcaps, Ohau & District Ambulance Association Inc, Southland
Palmerston North Hospital Board
Dr N Potter
Priory of the Order of St John
Mr C Raine
Royal New Zealand College of General Practitioners
St John Ambulance Association - Auckland
St John Ambulance Association - Canterbury, West Coast, Hari Hari
St John Ambulance Association - Cheviot
St John Ambulance Association - Christchurch
St John Ambulance Association - Hawkes Bay
St John Ambulance Association - Kawerau
St John Ambulance Association - Mangakino
St John Ambulance Association - Milton-Bruce
St John Ambulance Association - Oamaru
St John Ambulance Association - Otago
St John Ambulance Association - Rangiora
St John Ambulance Association - Whangarei
St John Ambulance Association - Upper Waitaki
St John Ambulance Brigade - Mangakino
St John Ambulance Transport Management Committee (Waikato Hospital Board Area)
South Canterbury Hospital Board
Southland Hospital Board
Mr J D Stretton

Ms E Sutton
Taranaki Hospital Board
Taumarunui Hospital Board
Thames Hospital Ambulance Operators Board
Thames Hospital Board
The Institute of Ambulance Officers
Waikato Hospital Board
Waipawa Hospital Board
Wairarapa Hospital Board
Waitaki Hospital Board
Wanganui Hospital Board
Wellington Free Ambulance Service
West Coast Hospital Board
Whangarei Ambulance Officers

APPENDIX C

SCHEDULE OF LOCATIONS VISITED BY THE CONSULTANTS

During the review visits were undertaken to the following areas. Details of those with whom discussions were held are contained in Appendix D.

Auckland
Christchurch
Dunedin
Fielding
Hamilton
Hawkes Bay
Invercargill
Marton
Ohau
Otautau
Palmerston North
Te Anau
Te Kauwhata
Tuatapere
Waipukurau
Wanganui
Wellington

APPENDIX D

SCHEDULE OF PERSONS SEEN BY THE CONSULTANTS

Amongst those with whom discussions were held, were the following:

Mr D Abbott, Wellington Polytechnic, Wellington
Mr J Abrahams, St John Ambulance Association, Marton
Professor A Alldred, Southland Hospital Board
Miss L Anderson, Auckland Hospital Board
Mr R Anderson, St John Ambulance Association, Dunedin
Dr D Andrews, Canterbury Hospital Board
Mr P Baker, Palmerston North Hospital Board
Dr G Beacham, Royal New Zealand College of General Practitioners', Hastings
Mr T Becker, Palmerston North Hospital Board
Dr D Beckett, Auckland Hospital Board
Dr F Bennett, National Committee on Emergency Care, Hastings
Mr R Biggs, St John Ambulance Association, Hamilton
Mrs H Boldero, St John Ambulance Association, Te Kauwhata
Mr R Boldero, St John Ambulance Association, Te Kauwhata
Mr J Boyack, Wanganui Hospital Board
Ms S Boston, Fiordland Volunteer Service Inc, Te Anau
Professor G Brinkman, St John Ambulance Association, Dunedin
Miss E Brister, Wellington Polytechnic
Mr N Broadbent, Palmerston North Hospital Board
Mrs J Brook, St John Ambulance Association, Christchurch
Ms C Brown, Fiordland Volunteer Service Inc, Te Anau
*Mr M Brown, Wellington Free Ambulance Service
Ms P Buchanon, St John Ambulance Association, Mautaura
*Mr G Burfield, Palmerston North Hospital Board
Mr C Callaghan, Technical Correspondence Institute, Wellington
Dr J Chambers, Otago Hospital Board
Mr A Charles, St John Ambulance Association, Fielding
Mr B Chatterton, St John Ambulance Association, Christchurch
Mr L Colquhoun, St John Ambulance Association, Auckland
Miss D Comley, Wellington Polytechnic
Mrs K Cox, St John Ambulance Association, Fielding
Mr W Coppin, St John Ambulance Association, Dunedin
Ms J Crowley, Fiordland Volunteer Service Inc, Te Anau
Mrs A Cunningham, YMCA, Auckland
Mr C Daly, Hospital Boards' Association, Wellington
*Mr R Dansey, St John Ambulance Association, Auckland
Mr I Dassler, Palmerston North Hospital Board
Mr J Davidson, Canterbury Division, NZMA, Christchurch
Mr R DeLaurier, St John Ambulance Association, Auckland
Mr I Eagle, Waipawa Hospital Board
Miss F Elkin, Auckland Technical Institute (North Shore)
Sir Randal Elliott, Priory of the Order of St John, Wellington
Mr W Elliott, Nightcaps, Ohai and District Ambulance Association Inc
Mr P Ellmers, Waipawa Hospital Board
Dr R England, Wanganui Hospital Board
Dr M Fahey, Christchurch

Dr R Fairgray, Canterbury Hospital Board
Mr R Faulkner, Tuatapere District Ambulance Service
Mr W Faulkner, Tuatapere District Ambulance Service
Mr M Fisk, Palmerston North Hospital Board
Mr W Flynn, Southland Hospital Board
Mr A Fraei, St John Ambulance Association, Hawkes Bay
Mr Froude, St John Ambulance Association, Otautau
Mr J Gibson, Waipawa Hospital Board
Professor W Gillespie, Canterbury Hospital Board
Mr P Gilman, St John Ambulance Association, Hamilton
Mr D Goodwin, Wellington Free Ambulance Service
Mr R Goodwin, St John Ambulance Association, Hawkes Bay
Mr G Gordon, Palmerston North Hospital Board
Dr R Greenhough, Auckland Hospital Board
Mr D Griffin, Central Institute of Technology, Heretaunga
Mr T Grigg, Canterbury Hospital Board
Staff Nurse A Haggie, Wanganui Hospital Board
Mr G Hansen, St John Ambulance Association, Auckland
Mr G Harvey, St John Ambulance Association, Rotorua
Dr D Hay, National Heart Foundation
Mr D Hay, Southland Hospital Board
Mr I Hay, National Ambulance Officers' Training School (Christchurch)
Dr J Havill, Waikato Hospital Board
Mrs C Heale, St John Ambulance Association, Otautau
Mr D Hebberley, Wellington Free Ambulance Service
Mr J Henwood, National Ambulance Officers' Training School (Auckland)
Mr R Hirst, St John Ambulance Association, Auckland
Ms J Hodges, Fiordland Volunteer Ambulance Service Inc, Te Anau
Mr G Home, Southland Hospital Board
Mr R Horrell, Tuatapere District Ambulance Service
Mr G Howell, St John Ambulance Association, Hawkes Bay
Mr T Hunt, St John Ambulance Association, Hawkes Bay
Mr E Jackson, Wellington Free Ambulance Service
Mr D Jenkins, Wellington Free Ambulance Service
Dr J Judson, Auckland Hospital Board
*Mr P Kimble, Drivers' Federation
Mr R Knighton, St John Ambulance Association, Dunedin
Mr I Lauder, St John Ambulance Association, Auckland
Dr P Law, Royal New Zealand College of General Practitioners (Canterbury Faculty)
Dr T Lawrie, Ambulance Transport Advisory Board
Dr P Leslie, Wellington Hospital Board/National Committee on Emergency Care
Dr G Lewis, Hawkes Bay Hospital Board
Mr Lindsay, St John Ambulance Association, Otautau
Dr M Lusk, Hawkes Bay Hospital Board
Dr S McCormack, Royal New Zealand College of General Practitioners (Canterbury)
Mr G McDonald, St John Ambulance Association, Christchurch
Mr McDonald, St John Ambulance Association, Otautau
Brigadier J McGreevy, St John Ambulance Service, South Australia
Mr W McKay, Priory of the Order of St John, Wellington
Dr W McKean, Hawkes Bay Hospital Board
Mr J McLachlan, St John Ambulance Association, Auckland
Mr D McLeod, St John Ambulance Association, Hawkes Bay

Mr D McMillan, St John Ambulance Association, Otago
Mr G McMillen, St John Ambulance Association, Otago
Mr S McPhee, Palmerston North Hospital Board
Mr W Manning, National Ambulance Officers' Training School (Auckland)
Ms L Matheson, Fiordland Volunteer Ambulance Service Inc, Te Anau
Ms B Meads, Wanganui Hospital Board
Dr T Medlicott, St John Ambulance Association, Dunedin/Otago Emergency Medical Team Inc
Mrs Mills, Tuatapere District Ambulance Service
Dr C Moller, Auckland Hospital Board
Mr I Morton, Palmerston North Hospital Board
Mr P Murfitt, St John Ambulance Association, Hamilton
Miss J R Neilson, Canterbury Hospital Board
Mr A Parker, Parker Associates
Mr G Pennycook, St John Ambulance Association, Auckland
Deputy Assistant Commissioner G Perry, Auckland District Police
Dr J Perry, Hawkes Bay Hospital Board
Mr B Phillips, Wellington Polytechnic
Mr I Pickering, St John Ambulance Association, Auckland
Mr G Piercy, Southland Hospital Board
Mr G Pike, St John Ambulance Association, Hawkes Bay
Dr A Pitchford, Canterbury Hospital Board
Dr N Potter, Auckland
Dr A Poynter, Palmerston North Hospital Board
Mrs D Ridley, Fiordland Volunteer Ambulance Service Inc, Te Anau
Mr N Roberts, National Ambulance Officers' Training School (Auckland)
Mr E Rogers, Waipawa Hospital Board
Mr I Ross, Department of Health
Mr M Rousette, St John Ambulance Association, Hamilton
Mr D Rowan, St John Ambulance Association, Dunedin
Mr G Salmon, Wellington Free Ambulance Service/The Institute of Ambulance Officers
*Mr J Sands, Wellington Free Ambulance Service
Dr G Schmidt, Wanganui Hospital Board
Dr D Scott, Canterbury Hospital Board
Mr S Shirley, St John Ambulance Association, Auckland
*Mr A Shouksmith, Wellington Free Ambulance Service
*Mr F Simmonds, St John Ambulance Association, Christchurch
Mr I Simpson, St John Ambulance Association, Dunedin
Dr A Sinclair, Department of Health
Mr R Sinclair, St John Ambulance Association, Hamilton
Sir Thomas Skinner, St John Ambulance Association, Auckland
Mr C Slaughter, Wanganui Hospital Board
Mr B Smith, St John Ambulance Association, Marton
Dr D Snow, Auckland Hospital Board
Mr A Stearne, St John Ambulance Association, Otautau
Chief Inspector N Stanhope, Auckland District Police
Mr B Surtees, Wellington Free Ambulance Service
Assistant Commissioner K Sykes, Auckland District Police
Mr M Thomas, St John Ambulance Association, Hamilton
Mr T Tiplady, Nightcaps, Ohai and District Ambulance Association Inc
Mr J Tobin, St John Ambulance Association, Hawkes Bay
Mr A Train, Waipawa Hospital Board

Dr R Trubuhovich, Auckland Hospital Board
Mr B Tutton, Wellington Free Ambulance Service
Ms van der Broek, Wanganui Hospital Board
Mr R Velvin, Southland Hospital Board
Mr J Vercoe, Southland Hospital Board
Mr M Waite, St John Ambulance Association, Dunedin
Mr R Wakelin, Hospital Boards' Association
Ms M Ward, Fiordland Volunteer Ambulance Service Inc, Te Anau
Dr K Wardill, Waikato Hospital Board
Dr D Warren, Waipawa Hospital Board
Mr C Warwick, St John Ambulance Association, Auckland
Mr D Wear, St John Ambulance Association, Marton
Dr T Weston, Canterbury Hospital Board
Mr G White, St John Ambulance Association, Hamilton
Mr S Wilkinson, St John Ambulance Association, Christchurch
Mrs C Wilson, Nightcaps, Ohai and District Ambulance Association Inc
Mr C Wombwell, St John Ambulance Association, Dunedin
Mr M Woolf, Wellington Polytechnic
Mr A Wright, St John Ambulance Association, Dunedin
Mr J Wylie, Palmerston North Hospital Board
Mr F Young, Southland Hospital Board
*Union Delegates

APPENDIX E

SCHEDULE OF REPORTS AND PAPERS STUDIED BY THE CONSULTANTS IN THE COURSE OF THE REVIEW

Amongst reports and papers received were:

Agnew, Lauder, Fisher & Crawford "Sudden Cardiac Death : Results of Resuscitation Begun Outside Hospital - New Zealand Medical Journal, 22 June 1983.

Ambulance Transport Advisory Board. - Proposed Rank Structure.

ARCOS Studies (unpublished) - Trends in Coronary Heart Disease Rates in New Zealand" - Beaglehole et al "Myocardial Infarction & Sudden Death in Auckland" - Beaglehole, Stewart, Bonita, Jackson, Sharpe.

Auckland St John Ambulance Driving Officers - Collective Agreement (Voluntary) 1982.

Authority for Advanced Vocational Awards - "The AAVA National Qualifications".

Beacham, G M - "Pre Hospital Emergency Care : A Medical Responsibility" - New Zealand Family Physician, Winter 1984.

Beacham, G M - "Emergency Care & General Practice" - Patient Management, November 1983.

Becker, T - Report on Multiple Stabbing Incident (unpublished)

Central Institute of Technology - Information booklet on Halls of Residence.

Christchurch St John Ambulance Driving Officers Award 1982.

Dare, A O - "Ambulance Services in New Zealand" 1977.

Department of Health - copies of papers supplied to Ambulance Transport Advisory Board covering training and other relevant matters.

Department of Health Circular Memorandum Ambulance Operator, 1984/3.

Fahey, M F - "The Establishment of Decentralised Accident Emergency Teams in Christchurch" - New Zealand Medical Journal September 1975.

Frazier, W H - "Emergency Department Trauma Care - Priorities & Documentation." - Surgical Clinics of North America, October 1980.

Jones, E I - "Open Higher Vocational Education in New Zealand" - 1984 (unpublished).

Lewis, Aprahamian, Haller, Jacobs, Luternan (Panel) - "Pre Hospital Trauma Care - Stabilise or Scoop & Run" - The Journal of Trauma, vol 23, no. 8.

Manning, W J - "The Ambulance Officer : A Partner in Emergency Care" - Patient Management, November 1983.

McSwaine, N J - "Medical Control of Pre Hospital Care" - The Journal of Trauma, vol 24, no. 2.

National Ambulance Officers' Training School Protocols - Intermediate 1981 - Advanced 1980.

National Ambulance Officers' Training School - papers concerning: Correspondence Course, Basic Course, Intermediate Course, Advanced Care Course, Instructors Course, Supervision Course, Regional Courses.

National Ambulance Officers' Training School - copies of papers relating to staffing and administration of school.

National Ambulance Officers' Training School Report in the Teaching Year - 1983 - 1982 - 1981.

National Staff Committee for Ambulance Staff, England and Wales. "Recommendations on Extended Ambulance Aid Training", April 1984.

New South Wales Ambulance Service - papers covering training procedures.

New Zealand Ambulance Driving Award - 1982.

New Zealand Police District Training Unit - Inspectors Course, Control Room.

New Zealand Technical Correspondence Institute - Information Booklet Prospectus 1984.

Palmerston North Hospital Board - Standing Orders Ambulance Service - Proposed Protocol Cardiac Care - Ambulance Officers Course.

Peacock, J B - "The Training of Emergency Medical Technicians" - ANN Emerg. Med. July 1981.

Pickering, I - "Advanced Training for Ambulance Officers" Winston Churchill Memorial Trust Fellow Report 1975.

Redmond, A D - "Paramedics in the United Kingdom" - British Medical Journal, February 1984.

Schedule of Approved Ambulance Services and Existing Fleets - January 1984.

Southland Hospital Board - papers relating to local training.

St John Ambulance Association (Dunedin Subcentre) Ambulance Driving Officers - Collective Agreement (Voluntary) 1982.

St John Ambulance Association, Auckland - papers referring to Life Support Unit Statistics, Patient Record Forms, Drug Administration Record Forms.

St John Ambulance Transport Management Committee (Waikato Hospital Board Area) - Operational Procedures - Salbutamol Administration Certificate.

St Johns Ambulance Association, Christchurch - papers relating to local training.

Stanley, G - "Ambulance Services" Winston Churchill Memorial Trust Fellow Report 1973.

Technical Institute Salary Scales.

The Order of St John Priory in New Zealand - Annual Report 1983.

Trunkey, D D - "Is A.L.S. Necessary for Pre Hospital Trauma Care" - The Journal of Trauma, vol 24, no. 1

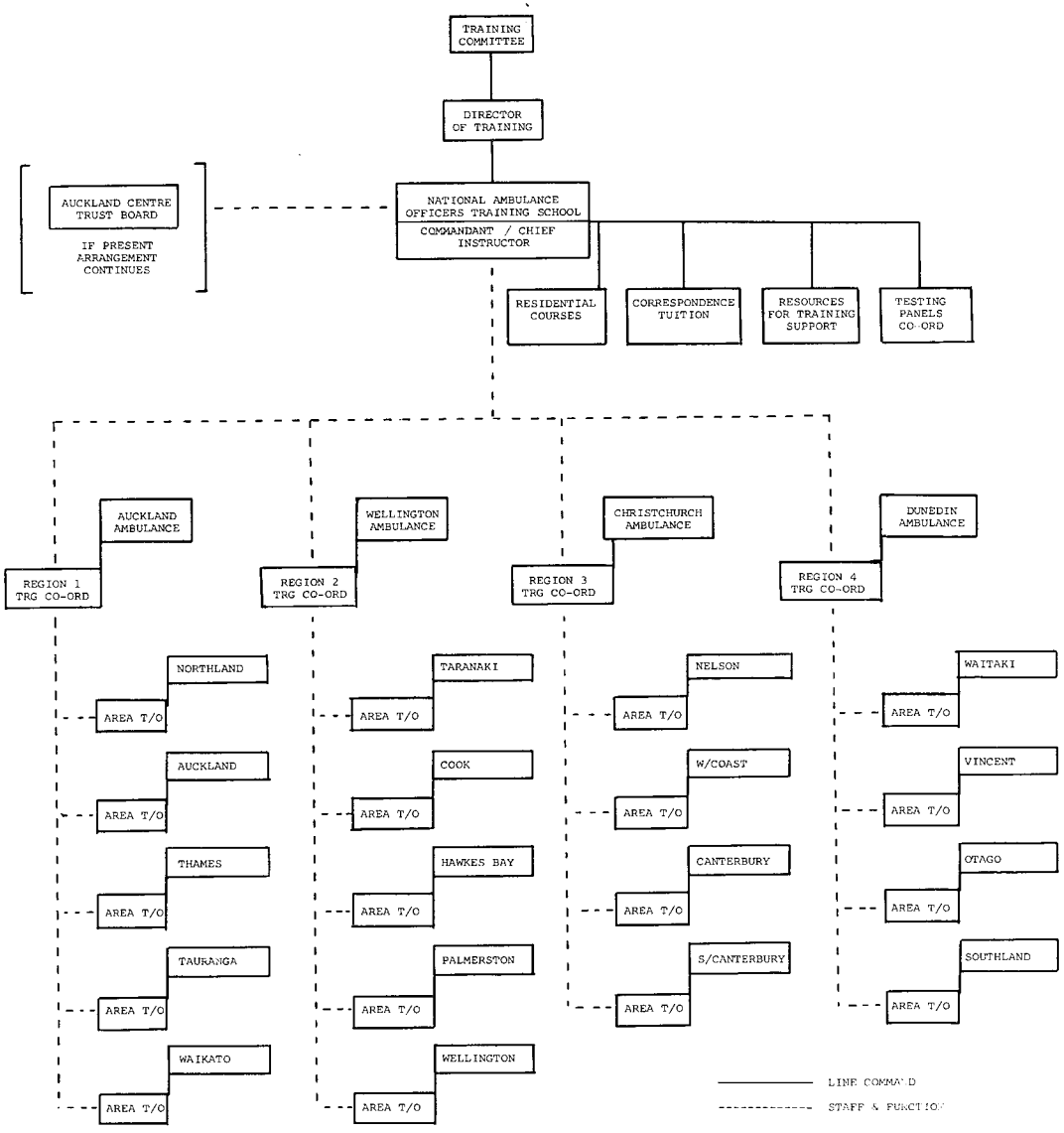
Vocational Awards Act 1979.

Wellington Free Ambulance - Information Booklet - Executive Structure - Shift Roster - Involvement of Officers with Training.

Wellington Free Ambulance Driving Officers - Collective Agreement (Voluntary) 1982.

APPENDIX F

TRAINING ORGANISATION CHART



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