STB 831

PREM 19/385

PART 1.

MT

TOP SECRET

Confidential file

The PM's visits to N. Ireland.

IRELAND

August 1979

Referred to	Date	Referred to	Date	Referred to	Date	Referred to	Date
~~27.8.79~~							
~~30.8.79~~							
~~3.9.79~~							
~~5.9.79~~							
~~11.10.79~~							
~~28.12.79~~							
~~2.1.80~~							
~~8.1.80~~							
16-1-81							
— ENDS —							

PREM 19/385

PART 1 ends:-

MODBA to T.L. Kennedy of 16/1/80

PART 2 begins:-

Sir. K. Stowe to CAW of 5/2/81.

vb

CF for
N.I. papers

16 January 1980

The Prime Minister has asked me to thank you for the letter which you and Mr. Gordon sent her on 10 January and for the booklet enclosed with your letter.

She is most grateful to you for your thoughtfulness in following up the questions she raised with you at Stormont.

M O'D B A

T.L. Kennedy, Esq., F.R.C.S.

TLK

11 R15

Royal Victoria Hospital GROSVENOR ROAD, BELFAST BT12 6BA – Telephone 40503

10th January, 1980.

The Right Honourable Margaret Thatcher,
10 Downing Street,
LONDON.

Dear Prime Minister,

It was a great pleasure to meet you at Stormont Castle on Christmas Eve. We are writing to thank you for devoting so much of your time to visiting Northern Ireland and for the interest you showed in many of our problems. We are Surgeons at the Royal Victoria Hospital; we were particularly gratified by your interest in the hospital and your awareness of the type of work we carry out.

You asked us a number of questions about the hospital and especially how we have been able to help injured servicemen. We enclose a copy of "The Surgery of Violence" published some years ago by the British Medical Association. It sets out some of our experiences in this field.

Yours sincerely,

Derek S Gordon.

T. L. Kennedy, M.S.,F.R.C.S.
D. S. Gordon, M.Ch.,F.R.C.S.

Encl.

SURGERY OF VIOLENCE

From the British Medical Journal

SURGERY OF VIOLENCE

Articles published in
the *British Medical Journal*

Published by the British Medical Association
Tavistock Square, London WC1H 9JP

©British Medical Journal

ISBN 0 7279 0004 8

Printed by Dawson & Goodall Ltd.
The Mendip Press, Bath

PREFACE

BY

THE EDITOR, "BRITISH MEDICAL JOURNAL"

The use of violence in pursuit of political ends has left its tragic trail through human history. At the same time it has presented opportunities to surgeons and physicians to advance their special skill in alleviating the suffering dealt out—so often haphazardly—to the victims of attack. The staff at the Royal Victoria Hospital, Belfast, have had the misfortune to acquire exceptional experience in dealing with the casualties of urban guerrilla violence. And since this type of civilian warfare is widespread in the world today, and sporadic in the disasters it presents to the medical profession, we invited a series of contributions to the *B.M.J.* from Belfast to guide those of our readers who might suddenly be faced with a problem of this kind. Seven articles appeared early in 1975, and they are here republished together with a bibliography of papers on the subject by members of the staff of the Royal Victoria Hospital and an introduction by Sir Ian Fraser, doyen of surgery in Northern Ireland.

June 1975

MARTIN WARE

The authors of this book dedicate it to the nursing staff of the Royal Victoria Hospital, Belfast

Contents

Introduction

For over six years Belfast and many of the other towns in Ulster have suffered from what the Press call urban guerilla warfare. Every hospital in the Province has had to bear its fair share of this ordeal, but the main hospitals in Belfast have borne the brunt of the attacks. At times when casualties were particularly numerous they had to be divided over two or more hospitals, but most have been taken to the Royal Victoria Hospital. This, the main teaching hospital, with a full range of surgical specialties, happens to be placed in the main battle area. This has meant that never before have casualties reached hospital so soon after wounding.

In addition to the ever ready general surgical teams there were on call representatives of all the other specialties—orthopaedic, thoracic, neurosurgical, maxillo-facial, ophthalmology, E.N.T. and paediatric surgery. Since many injuries were multiple, one could have almost every combination of trauma—a torn major blood vessel requiring repair or a graft, a major head injury, a perforated wound of the chest, often with ear drum injuries from blast. Two perforating wounds of the heart were dealt with successfully by registrars in training, which indicates the skill that was available.

The articles in this booklet represent just a little of the work done. They cover a few of the surgical problems that have been met with, but to keep this work short and readable not everyone was asked to write an article. Many other surgeons and anaesthetists have made great contributions.

It is now 30 years since the end of the second world war. Many of the surgeons practising today have not had the experience of war surgery in the field, but in reality the present work has little in common with war surgery. The main features of the Belfast experience have been the short time between injury and treatment and the availability of a first-class casualty centre where sorting and triage had reached a high pitch. With anaesthetists' skill to deal with the collapsed patient, and with an ultra-modern intensive care unit, the wounded had a chance of recovery which was never available in any theatre of war before. After each major incident the demand for blood has been enormous but the staff of the Blood Transfusion Service and the donors have never failed to meet the demand.

One cannot praise too highly the dedication and skill of the registrars, the residents, and the nursing staff, but where does one stop? Success depends on every link of the chain being secure, and so ambulance men, technicians, orderlies, radiographers, and physiotherapists—all helped to make for perfect team work.

Ian Fraser

Civilian Bomb Injuries

BY

T. L. KENNEDY AND G. W. JOHNSTON

URBAN guerilla warfare seems to have become a part of life (and death) in the 1970s, and of its many weapons the bomb is perhaps the most repulsive and the most feared. The terrorist's bomb differs from that of conventional warfare as it is nearly always delivered by hand or in a motor vehicle. In these catastrophies quite a small charge, perhaps only 2–30 lb (1–14 kg) in a suitcase or parcel, is carried into a confined space. The casualties are caused by the blast itself, by flying debris, and occasionally by falling masonry. The wartime aerial bomb on the other hand was inevitably enclosed in metal, was very much larger, and caused its casualties mainly by falling masonry and flying metallic fragments. For example, if a 500 lb (230 kg) aerial bomb landed within a crowded bar there would probably be few survivors for the surgeon to worry about.

The car bomb contains a much larger charge of explosive, up to 500 lb (230 kg) or even more, placed within the vehicle. When such a bomb explodes without warning, people close by may suffer serious injury, but the majority of casualties receive relatively minor injuries from flying debris.

ORGANIZATION

Perhaps the greatest problem from the surgeon's point of view is the simultaneous arrival at casualty of large numbers of patients, often in the evening when the majority of the senior medical staff have gone home. The initiation of a disaster plan and the organization of the casualty department will be discussed in a subsequent article. However, certain aspects of organization can be conveniently dealt with here.

When the staff has been mobilized we generally find it desirable to leave the most senior surgeon in the casualty department, sorting and categorizing the injured. The most seriously injured patients go straight to the resuscitation room in the casualty department, where it is essential to have the help of an anaesthetist. One cannot overemphasize the importance of rapid restoration of blood volume, maintenance of the airway by intubation if necessary, and the use of intercostal drains where indicated, even before *x*-ray films have been taken.

At the Royal Victoria Hospital we are fortunate in having an admission unit and, in addition, a large recovery room immediately adjacent to a suite of four theatres equipped for general surgery. These two areas are capable between them of accommodating 30 casualties. Those requiring immediate and major surgery are transferred to these areas with appropriate *x*-ray films, thus avoiding unnecessary disturbance of ordinary ward

patients. A further senior member of the staff, often an anaesthetist, should be available to supervise the continuing resuscitation, to organize the distribution of casualties among the surgeons available, and, where indicated, to call in surgeons of other disciplines. It is also his duty to decide the priority of operation as the clinical state of the patients already admitted changes or as other more urgent cases arrive from the casualty department.

With this system the provision of beds at ward level becomes a less urgent matter. Ward patients can be discharged or transferred simultaneously with the other activities. We have found the senior nursing staff invaluable in making these arrangements. It has been our experience that on average less than 25% of the patients arriving at the casualty department require admission. This figure can of course reach over 50% after explosions in a confined space.

Types of Injury

Those closest to a large explosion may be blown to pieces by the force of the blast and do not need the services of the hospital. In those coming to hospital the wounds are characterized by their multiplicity and by the associated gross soiling which may occur. The common basic injury is a combination of bruises, abrasions, and lacerations. Wounds vary in size from minute punctures, due to glass or metal fragments, up to huge lacerations, often impregnated with all sorts of foreign bodies. The most bizarre was that of a woman whose thigh was transfixed by the leg of a table in the Abercorn Restaurant explosion (fig.). Perhaps the most macabre foreign body we have encountered was that of a 14-year-old youth, who lost his right hand when the bomb he was throwing exploded prematurely. He was found to have a small wound in his neck, and when this was explored, the missile proved to be the terminal phalanx of his missing thumb. Tattooing of the skin of exposed parts from propelled dust is commonly seen, but this is of little immediate importance.

The majority of the wounds have been peripheral, the legs accounting for over a third of all injuries treated. While the head has been the site of injury in about a third of all patients, the majority of the wounds were of a superficial nature; some, however, require the skills of a maxillofacial team. Isolated eye injuries are unusual, but they occur commonly in association with other facial injuries and range from simple corneal abrasions to serious penetrating wounds for which enucleation is the only possible treatment. In contrast to our experience with bullet wounds of the head, penetrating skull injuries and brain damage are uncommon after explosions. Special mention should be made of damage to the middle and inner ear resulting from shock waves spreading concentrically from the blast centre; this subject will be dealt with in a subsequent article. Less than 10% of all casualties have injuries to the chest or abdomen, and the majority of these wounds are superficial. Some of the more serious injuries never reach hospital.

Burns have been surprisingly uncommon, accounting for only about 3% of admissions. They are of two types. The flash burn is due to radiant heat and affects only persons close to the centre of the explosion. Clothing protects against this type of burn, and thus the hands and face are the areas usually affected. In contrast, the flame burn arises chiefly from burning clothing or when the building catches fire, and thus all areas of the body

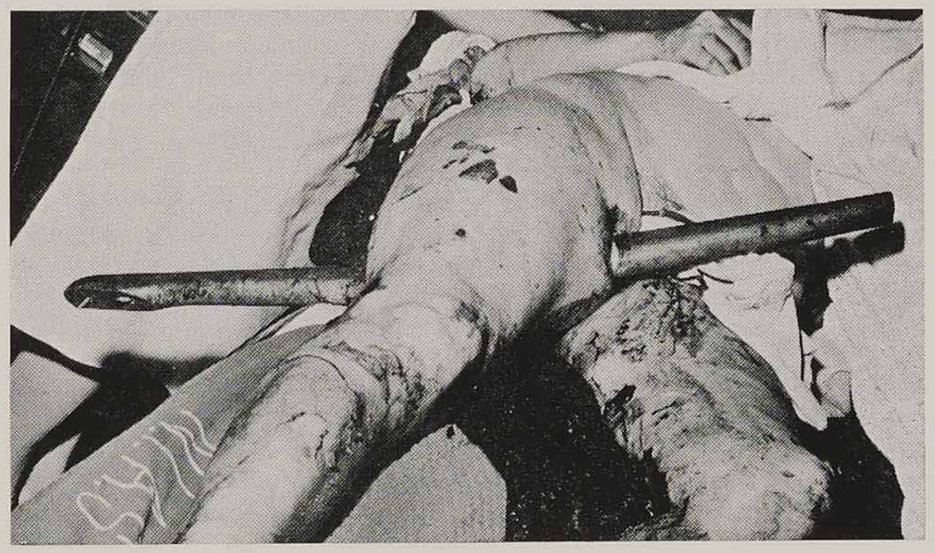

Fig.—Woman's thigh transfixed by leg of a table.

may be affected. Our worst experience of burns was that of a young couple who each sustained fatal burns, involving 80–90% of the body surface, when the letter bombs which they were making in their "factory" blew up.

Blast injuries of the lung are a special problem that we have occasionally encountered. They take the form of alveolar haemorrhage, which in severe cases gives rise to obstruction of the respiratory passages with blood and froth. A subsequent article will deal in depth with this problem.

Management

It may at first seem that there is little difference between the management of injuries produced by high-speed motor accidents and those produced by a bomb explosion. But this is not so. The main difference is the gross tissue damage and wound contamination, which makes gas gangrene a major hazard, particularly with wounds of the thigh or buttocks. It is therefore essential that debridement should be thorough, all dead tissue being most carefully excised. On no account should there be any attempt at primary suture of a bomb wound in which muscle has been involved. We have more than once seen gas gangrene result from such injudicious wound closure. After debridement the wounds are dressed and splinted, where indicated, with plaster-of-Paris. Wounds are left undisturbed until the fifth or sixth day unless pain, pyrexia, odour, or soaking of the dressings dictates

otherwise. If, on inspection, the wound appears clean, delayed primary suture or grafting may be carried out at the five-day inspection. This often has to be further delayed when the wound looks unhealthy or shows any signs of sepsis. All the casualties are given tetanus toxoid and a broad-spectrum antibiotic. On this regimen, we have not seen a single case of tetanus after these injuries, even though tetanus from agricultural accidents still occurs occasionally in this Province.

In our experience of public house bomb incidents, similar to those seen recently in England, there have been many traumatic amputations. After trimming of the skin flaps, primary closure should only rarely be attempted, when all divided muscle is seen to be absolutely healthy and uncontaminated. It is far safer to leave the flaps approximated with a few loose sutures and perform delayed primary suture later.

Less than 10% of casualties admitted have wounds of the trunk, and only 10% of these have penetration of the pleura or peritoneum. However, even apparently superficial wounds in the area of the trunk should be assessed most carefully, as the underlying wound may be serious. We know, for instance, of one patient with a tiny puncture wound in the left flank; this was not explored, and he died a few days later with biliary peritonitis due to puncture of the common bile duct. This merely underlines the fact that all penetrating wounds of the chest or abdomen must be explored.

Rehabilitation

Physical and psychological rehabilitation must begin immediately. The need for physiotherapy to the uninvolved muscle groups and joints is obvious, but what is not so apparent is the need for mental preparation of the patient for the eventual transfer to the outside world. For example, we have seen the bilateral amputee remain calm, co-operative, and stoical in the protective hospital environment, only to break down on discharge from hospital. Though the incidence of psychiatric illness in general, and depression in particular, has been reduced in Belfast during the "Troubles", the individual involved in an explosion suffers a tremendous psychological upset, and often takes years to regain confidence.

Conclusion

Terrorist bombs may produce large numbers of casualties, placing a great strain on the resources of even a large hospital. The pattern of casualties varies greatly from one incident to another, so that considerable adjustment to a predesigned disaster plan may be required. It is a great advantage to have some vacant space within each major hospital in which numerous casualties can be accommodated.

The clinical management of the individual casualty is dominated by the need for massive resuscitation, for careful attention to the airway, and for scrupulous debridement, with delayed closure of all wounds. The mortality of these injuries is surprisingly low. In rehabilitation the psychological aspects of the problem should be remembered.

Disaster Procedures

BY

W. H. RUTHERFORD

One of the effects of bomb blast is that patients often arrive simultaneously in large numbers. This kind of multiple accident has been given many names, but recently the word disaster has become the generally accepted one. Bombing itself is a symptom of an illness in the community, and is unlikely to be an isolated incident. Over a three-year period the Royal Victoria Hospital, Belfast, had to receive multiple casualties from bombs on 48 occasions. (There were also 15 occasions when street rioting gave rise to a disaster situation.) The repeated use of the hospital's disaster plan gave us unusual opportunities to assess the value of its provisions. At least we were delivered from the first great difficulty in disaster planning, which is the difficulty in believing that the disaster will ever really happen.

The second difficulty arises from the multidisciplinary nature of disaster planning. Within the hospital it is a co-operative venture co-ordinating medical, nursing, and administrative services. Outside hospital, as well as medical services, it involves police, ambulance, and fire services, and possibly welfare services and some voluntary bodies. Multidisciplinary agreement is always more difficult to achieve than agreement between people inside any one discipline.

Disaster Planning at Hospital: Two Basic Principles

1. A Command Structure

Disasters are totally unpredictable in size, in the types of injuries, and in the proportions of minor and major injuries. The number of staff on duty at the time varies, and a dramatic disaster will bring many members of staff to hospital without being called. It is therefore impossible to detail in advance what resources should be called on. One should therefore quickly set up a command structure whose responsibility is to monitor both the influx of casualties and the arrival of volunteer staff. The command team will direct people where to work and mobilize additional staff and other resources as required. This command structure will consist of the senior officers in the medical, nursing, and administrative fields, with the consultant of the casualty department.

2. Value of Sticking to the Daily Routine

Working under stress, people tend without thinking to do the same thing that they do every day. If the disaster plan is drawn up with this in mind, it is likely to go smoothly. The more often procedures depart from the daily routine, the more mistakes are likely. For example labels tied to the wrists

of patients are likely to cause more confusion than help unless those using them are accustomed to such a system in their daily work.

Some Important Aspects in Hospital

1. Triage

This word means sorting out. It was used for the sorting out of battle casualties at forward clearing stations and is now often applied to disasters. Within hospital there are three points at which triage occurs.

On arrival the patients are sorted so that the space and facilities of the casualty are best used. The worst cases will go to the resuscitation room, the next worst to adjacent cubicles, and the less serious a case appears the farther from the resuscitation room will he be placed. Patients with mild injuries do not object if three or four of them are asked to share a cubicle normally used for one. A weeping room for the emotionally shocked but uninjured can be well away from the main stream of patients. An area for suturing wounds outside the department is also useful in allowing a more rapid turnover.

The actual placement of patients in cubicles can be done very well by the casualty sister. The casualty consultant will sort his resources of staff, allocating specific doctors to patients or to areas of the department. To a considerable extent the sister and consultant will overlap in these duties, and both will need to be available for answering the questions of those not regularly working in the department.

We are very fortunate to have a department with 20 cubicles, and an adjacent fracture clinic with a further 15 cubicles. On the upper floors of the same building are all the other outpatient clinics. Throughout the building a standard trolley is used in all cubicles. The value of the extensive cubicle space on the ground floor and the great number of trolleys has been incalculable.

The x-*ray department* is inclined to be a bottleneck. It is useful for a senior doctor to screen requests. Some can be cancelled, some delayed for 24 hours, and the remainder arranged in order of priority.

Priorities for the operating theatre will be decided by a senior consultant surgeon. Providing him with correct lists of all admitted patients with rough details of their injuries is an important aspect of the documentation problem.

2. Documentation

The importance of documentation cannot be overstated. Safe transfusion depends on it. The clinical record made on admission is likely to be the only preoperative record. These situations often result in public inquiries and in litigation. All of these facets require good records. I will describe in detail how our own system works, and then suggest how to achieve a similar result where the same types of papers are not available in daily use.

The issuing of case papers is one place where we alter our normal routine. Instead of sending patients or relatives to a receptionist we place the patients in suitable cubicles, and one or two receptionists walk round from

cubicle to cubicle with armfuls of case papers, issuing papers to patients as they find them.

Duplicating papers: Our routine case record is five sheets thick, made on self-copying paper. This is very useful in a disaster. The receptionist leaves the top two copies with the patient and takes the lower copies to the desk. From these another clerk can start to make the basic list of people who have arrived in hospital. All clinical notes, *x*-ray requests, and records of treatments and investigations are written on the two copies which are with the patient.

For the collection of information it is helpful during a disaster if it can be arranged that only one way remains for all patients to get out of the casualty department. When they go to theatre or ward, or to a suturing area, one copy of their paper is handed in to the desk and the other travels with them. If they are being discharged home, both are collected. Efficient collection of papers is very important. It is amazingly easy to lose people, or for their papers to be left lying around cubicles after they have left.

Listing of patients is carried out soon after they arrive. As they leave the casualty department a copy of their record is handed in and information from it is added to the basic list. For all patients a rough diagnosis and the disposal (admission, transfer, discharge, etc.) are entered. For patients who are being admitted it is noted whether their condition is critical, serious, or fair. Lists with these items are made up with fairly few names to each sheet. As a sheet is completed, it is photocopied. The copies are then passed to people responsible for communications and inquiries. In this way it is possible to keep abreast with events almost as they happen. There is a great reassurance both for the hospital staff and for the public in knowing that correct information is quickly and accurately available.

A modified system: If the normal documentation does not incorporate duplicated copies, the receptionists, when issuing basic case records, would need to take with them also forms to list the name and case number of each case they issued. If more than one receptionist was doing this, their lists should be amalgamated. If possible, patients going to theatre or ward should have their records photocopied. The photocopy would travel with the patient and the basic record stay at the main documentation centre in the casualty department.

3. The Media

Nobody can deny that the public wants to know about a disaster. The dissemination of information is the responsibility of the mass media. Doctors have many worries in a disaster. The last thing they want is an interview. But the story is going to be written and told, and arrangements must be made to see that it is done. Where there is already a good working relationship between doctors and reporters they are likely to co-operate well in a disaster. But if there is mutual suspicion and hostility in daily relationships a disaster will exaggerate this position.

Hospitals are ultimately dependent on the public for finance. Adequate finance is more likely to be forthcoming from a sympathetic public. A

disaster is a moment where public interest comes to the hospital. Well-presented information will do the hospital a lot of good.

Newsmen are attracted by the dramatic—the best pictures are the most shocking. Reporters are not noted for being overscrupulous about people's feelings. It is the responsibility of doctors to see that patients or relatives who want to opt out of interviews or photographs can easily do so.

In a disaster from civil disturbance groups of people in society are taking up polarized attitudes. The hospital may be seen as part of the establishment, and therefore prejudiced. The more the hospital can avoid getting involved in the pros and cons of the conflict, the more it will be in a position to be available for the treatment of all.

4. Two Untested Ideas

As explained before, the most crucial step in disaster management in hospital is the rapid mobilization of what I have called the command structure. The team will have at least four people—a doctor, a nurse, and an administrator in charge of their respective departments, and a consultant for the casualty department. At the beginning of a disaster these four will need to be alerted within minutes, and should be within the hospital in 10–15 minutes. Walkie-talkie sets would have the advantage of almost instant contact through the 24 hours. The hospital should always have people clearly responsible for these four key posts. The walkie-talkie sets would be a concrete reminder of exactly who was on duty. If any officer is to be covered by a deputy, he would hand over his set to his deputy. These officers would find other uses for their sets in their daily work. Alternatively a "bleep" call-up would be satisfactory provided it had a range which could contact the officers at home as well as in hospital.

I have read accounts of disaster rehearsals but have never been in one myself. I am a little suspicious of their value because in a real disaster the main difficulty is the great stress under which one has to work. It is impossible to reproduce this element in a disaster rehearsal. At a disaster site a rehearsal may be of help in sorting out some problems of logistics. But inside hospital I am not sure that its benefits justify the disturbance to the treatment of real patients.

Many features of a hospital's disaster drill can be rehearsed without casualties. The most important of these is the original call-up of the command structure. This could be rehearsed once a month without disturbance to anybody. Other parts of the plan which could be similarly rehearsed are the preparation of lists of patients as for a disaster, and the re-routing of patients so that they left the department by one door only. Both of these could be practised at a busy time on any normal day. Similarly the documentation of ward patients as fit for discharge could be practised any time, as could the setting up of a pre-transfer ward in the gymnasium. If sections of the plan were regularly rehearsed in this way, minds would be kept alert to the possibility of disaster, and under the pressure of a real event routines would flow smoothly.

Disaster Organization at the Site

One of the outstanding factors at the site is the highly charged emotional atmosphere. One emotion which may affect many people is a sense of terror. People become incapable of speech or of deciding the simplest detail of what they ought to do. Another emotion is curiosity: the disaster acts as an enormous human magnet sucking in crowds of people. A more positive emotion is a deep concern for the injured, the realization that they may be in great danger and needing to be taken rapidly to hospital. Before there are shovels, people will lift masonry away brick by brick. Before there are excavators or lorries, people will pass rubble from hand to hand.

The admixture of all this emotion and the resulting activity results in confusion on a massive scale. Into this highly charged amateur situation members of the services arrive as professionals. It is the job of policemen, firemen, and ambulancemen to think coolly, to use common sense, to withstand the negative aspects of the crowd's response and to harness the positive.

Medical Role at the Site

Rapid Transport of Patients to Hospital

In all but one or two disasters we have been involved in, no doctor has been sent to the site either from the hospital or from the area board. The ambulancemen have themselves extracted the injured patients with the help of firemen, police, and soldiers. The bombings have all occurred within a four-mile (6-km) radius of the hospital. The emphasis has been on rapid movement of patients to hospital, and doctors have been concentrated ready to receive and treat patients in hospital. No resuscitation was carried out on site, and I do not know of any case where this affected the outcome unfavourably. No doubt there may be rural disasters and even other types of urban disasters where resuscitation on site might be advantageous. But in urban bombing we have found that rapid evacuation to hospital is a satisfactory system.

It is true that this policy results in minor casualties often arriving first in hospital. Whenever a seriously injured victim was extracted, he was always given priority for transport. But before the serious cases could be extracted, no merit was seen in keeping crowds of people with minor injuries waiting around at the site.

On-site Medical Officer

Ideally I think there should be a senior medical officer at the site. His presence would relieve considerable anxiety from the police, fire, and ambulance officers, and enable them to do their own work more efficiently. His reports to hospitals on the extent of the disaster and possible numbers of casualties would be of great help in hospital. He might be of some help in sorting out which hospitals casualties should be taken to. This matter, however, can probably be best decided in the offices of the ambulance control or emergency bed service.

Medical Teams

Where there is an emergency rescue service operating from a hospital for road traffic and other accidents, its services would be welcome at the disaster site. Doctors and nurses with no previous experience of this work are likely to be a hindrance rather than a help. In a rural setting a general-practice rescue service would be especially welcome, as with longer ambulance journeys the value of resuscitation for the badly injured will greatly increase.

Conclusion

Planning for disaster still presents many difficulties. The question arises of who is ultimately responsible to see that proper plans exist in an adequate state of readiness, covering the whole country and all the services needed. It is a question which is so far unanswered.

Intensive Care of Patients with Bomb Blast and Gunshot Injuries

BY

R. C. GRAY AND D. L. COPPEL

Since August 1969 Northern Ireland in general and Belfast in particular have been the site of recurrent episodes of civil disturbances. This article deals with the management of some of the more seriously injured casualties who have been admitted to the intensive care unit of the Royal Victoria Hospital.

The 12-bedded intensive care unit was opened in October 1970 and was originally designed for the care of the critically ill patients of the hospital and to provide a regional service for the management of respiratory insufficiency. The onset of civil disturbances has resulted in a considerable change of emphasis in that the staff of the unit are closely involved in resuscitation in the accident and emergency centre of the hospital and in the care of patients with gunshot wounds and severe injuries resulting from bomb blasts.

The situation of the intensive care unit (I.C.U.) in a hospital complex is of great importance. In a hospital which is concerned with the treatment of major trauma it is best positioned beside the accident and emergency department (fig. 1). This allows the staff of the I.C.U. to take part in

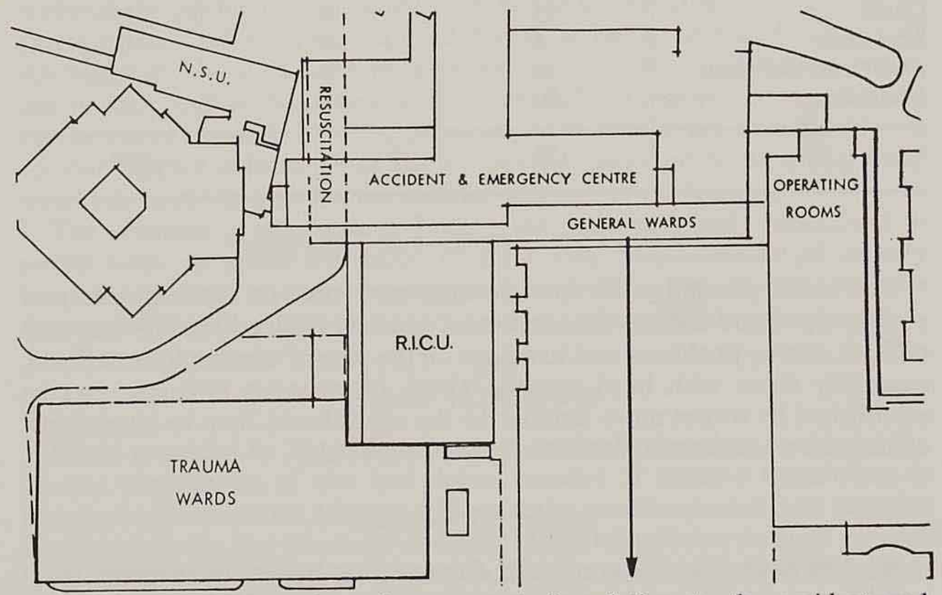

FIG. 1—Position of the intensive care unit in relation to the accident and emergency department.

resuscitation from the beginning and to establish some continuity in the care of the patients. It also has the advantage that when many seriously injured patients are brought to the resuscitation room simultaneously they can be rapidly transferred to the I.C.U. for further resuscitation and assessment. This provides an acceptable outlet and avoids a bottleneck in the casualty deparment.

The unit occupies a space of approximately 7500 ft^2 (700 m^2), with six beds on an open plan and six single rooms. There is an additional room which is occupied by a hyperbaric oxygen chamber but which can be used for other purposes should the necessity arise. A bedroom is available for the duty doctors, who provide continuous supervision. In addition a consultant anaesthetist is present in the unit throughout the day and on a rota basis for night work.

Between October 1970 and November 1974, 2040 patients were admitted to the Royal Victoria Hospital as a result of disturbances, and 208 of them were transferred to I.C.U. These included casualties not only from the Royal Victoria Hospital but from other hospitals throughout Northern Ireland. These patients represent approximately a sixth of all admissions to the respiratory intensive care unit during this period. The table shows the site of injury and outcome.

Outcome related to Site of Injury from Civil Disturbances October 1970 to November 1974

Site	Discharged	Died	Total
Head	34	40	74
Neck and jaw	14	5	19
Chest	23	4	27
Abdomen	4	8	12
Chest and abdomen	13	6	19
Multiple	40	17	57
Total	128	80	208

Resuscitation and Early Treatment

The close proximity of the intensive care unit to the accident and emergency centre enables the consultant anaesthetist in charge to deal with difficult airway problems and to advise on the care of unconscious patients, especially those with head injuries. Often intravenous infusions can be established by routes more familiar to the anaesthetist than to his surgical colleagues when conventional sites are not available.

Airway Problems

Injuries to the face, jaw, or neck due to either bullets or shrapnel from bombs may rapidly produce upper airway obstruction. This usually arises from oedema of the soft tissues or from direct damage to the larynx or

trachea. The insertion of a cuffed tracheal tube at the earliest opportunity is of paramount importance both to ensure a clear airway and to prevent regurgitation of stomach contents and aspiration into the lungs, with subsequent pneumonitis. The latter is a very real danger, as many of the patients have been injured in bars and clubs.

Deeply unconscious patients may usually be intubated without any great difficulty. On the other hand many are restless, irritable, uncooperative, and hypoxic. Intubation in these circumstances cannot be performed without some form of sedation. The administration of diazepam (5–10 mg) intravenously will enable rapid intubation to be performed without a struggle and without compromising the patient's already hazardous condition. In our experience emergency tracheostomy has fortunately been very seldom required. It has been our practice in many instances to perform an elective tracheostomy after exploration of the wounds and surgical repair. This facilitates management in the postoperative period, and many respiratory problems can be prevented. An additional advantage of tracheostomy in these circumstances is that the difficulties of giving further anaesthetics are overcome. Frequently these patients require many visits to the operating theatre for further surgery and wound dressings.

Fluid Replacement

Much has been written on the type of fluid which should be given initially to the injured patient in haemorrhagic shock. The emphasis varies from centre to centre and from one country to another, but certain principles are common to all. Hartmann's solution (Ringer's lactate) is readily available, and since it is stable at room temperature it can be given without the problems associated with blood stored at 4°C. 1–2 l can be given rapidly while cross-matched blood is being prepared. Group O Rh-negative blood is kept in a refrigerator in the resuscitation room, but is used only if the patient's condition fails to respond or deteriorates on the above regimen. Dextran solutions (MW 70 000) are used in addition to Hartmann's solution, but the volume is restricted to 10 ml/kg body weight in order to avoid acute tubular necrosis of the kidney.

The volumes of intravenous fluids given must be closely monitored to avoid over- or under-correction of fluid loss. Measurement of urinary output and central venous pressure is started at the earliest possible moment and will usually provide a helpful guide to fluid replacement.

Blood Transfusion

Blood provided by blood banks is seldom fresh; the older the blood the greater the amount of clot and debris present. If massive transfusion is required a considerable amount will enter the circulation and may give rise to microemboli. The filters on standard blood transfusion sets will prevent the passage only of particles greater than 170 μm. The recent introduction of microfilters which remove all particles greater than 10 μm has helped to prevent pulmonary emboli and post-traumatic pulmonary insufficiency.

These filters do not significantly restrict the rate of transfusion but should not be used when fresh blood and platelets are being given.

Head Injuries

The initial management of head injuries resulting from bomb blasts and gunshot wounds is of considerable importance. It is well known that hypoxia, hypercarbia, acidosis, and electrolyte disturbances will increase cerebral oedema. Pioneer work by Lundberg, Lassen, Gordon, and Rossanda has shown the value of hyperventilation therapy in head injuries. This form of treatment has been used in this hospital since 1971.[1] Within a few minutes of admission a tracheal tube is introduced and hyperventilation therapy started with the aim of reducing the partial pressure of carbon dioxide in the arterial blood to approximately 25 torr (3 kPa). This allows the undamaged blood vessels of the brain to contract and reduces intracranial blood volume, with a fall of intracranial pressure.

Minor variations in intracranial volume such as those caused by coughing, vomiting, restlessness, shivering, and convulsions can increase intracranial pressure with dramatic and sometimes irreversible cerebral damage. This complication can be prevented or alleviated by this form of therapy. During the period of hyperventilation it is desirable to monitor intracranial pressure, cerebrospinal fluid lactate content, and cerebral blood flow to detect the presence of an expanding intracranial haematoma and as a guide to prognosis and the effectiveness of treatment. Close observation of the pupils still remains an important feature of management.

A most satisfying response is sometimes found in patients who suddenly develop a high intracranial pressure associated with dilated unreactive pupils, for the introduction of hyperventilation produces a dramatic fall in intracranial pressure, with a return of normal pupillary reflexes. We have found hyperventilation of value both before and during surgery, and it can also be continued for several days into the postoperative period with beneficial results.

Artificial Ventilation

Indications for artificial ventilation in patients injured in bomb blasts and from bullets can be considered in three main groups.[2]

1. Prophylactic

This group includes not only patients who are electively ventilated, such as those with severe head injuries, but also those who have undergone prolonged and extensive surgery. Artificial ventilation enables adequate analgesia to be provided without fear of respiratory depression and nursing procedures to be carried out without discomfort to the patient, and it allows the distress to the patient of realizing the extent of his injuries to be postponed until a more favourable time.

2. Direct Lung Damage

It is easy to understand how a crushing injury of the chest can result in respiratory insufficiency, but the mechanism is less obvious after high

velocity bullets and bomb blasts. The bullets travel faster than the speed of sound, and the great energy dissipated in the tissues results in shock waves. In the case of the lung this produces tissue damage some distance away from the bullet track. As the lung is elastic, permanent damage seldom results, but initially fulminant pulmonary oedema often threatens life. Though the bullet may have penetrated only one lung, the other lung may be as severely damaged and its function impaired.

Blast injuries of the lungs occur when people are close to an explosion, especially when it occurs in a confined space such as a bar or restaurant. The clinical picture is remarkably consistent in that for a period of 24–48

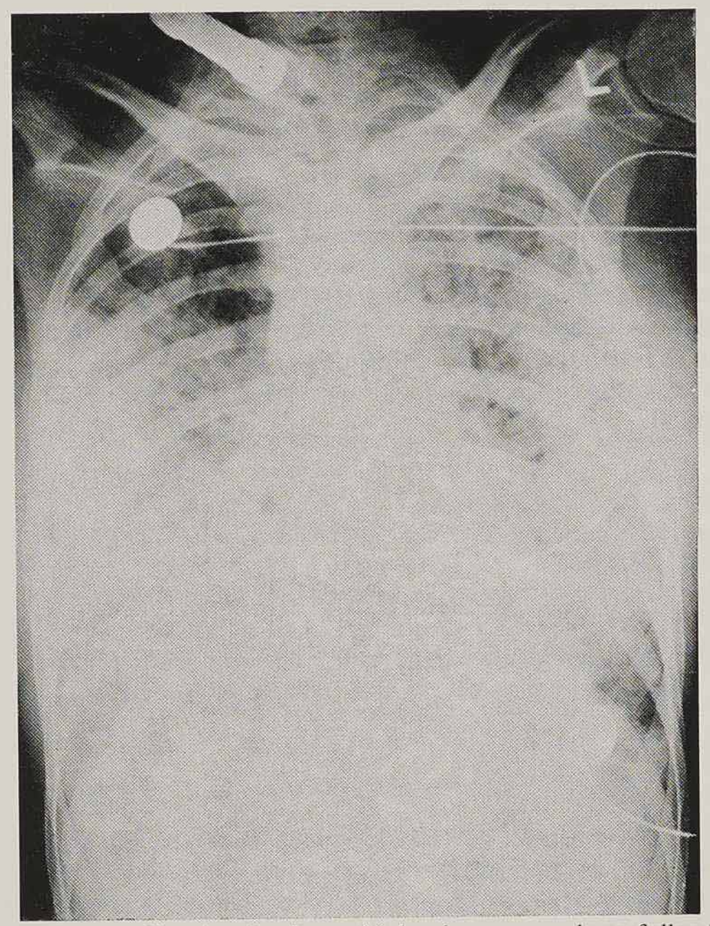

Fig. 2—Chest *x*-ray film showing interstitial pulmonary oedema following bomb blast.

hours the patient remains free from respiratory distress and the arterial blood gases are essentially normal; then gradually increasing dyspnoea associated with a dry cough becomes apparent. Moist sounds are then audible throughout both lungs, and the chest *x*-ray film shows a diffuse interstitial pulmonary oedema (fig. 2). The blood gas analysis now shows increasing hypoxaemia and carbon dioxide retention.

Treatment of this condition consists in artificial ventilation with a positive end-expiratory pressure (P.E.E.P.), giving high inspiratory concentrations of oxygen, and administering diuretics and steroids. Though the management of these cases is often complicated by the development of pneumothorax and artificial ventilation may be required for several weeks (in one of our patients for 60 days) the prognosis is surprisingly good.

Lung damage is due to the shock waves of the explosion travelling at high velocity and being transmitted through the chest wall to the liquid phase of the lung before an equalizing pressure can be transmitted through the tracheobronchial tree. These pressure differentials give rise to alveolar damage and haemorrhage. The lungs also become compressed between the inward moving chest wall and the rising diaphragm, because the pressure wave also compresses the abdominal wall.[3]

3. Post-traumatic Insufficiency

There are many possible explanations for this syndrome, especially in patients with multiple injuries who have received massive blood transfusion and have undergone extensive surgery. It is clear that, whatever the mechanism of its production, the end result is an increase in both pulmonary vascular resistance and in pulmonary capillary permeability. This produces pulmonary oedema, which may either resolve completely or progress into fatal consolidation of both lungs. The clinical course is unpredictable, and once consolidation occurs it is almost totally refractory to treatment.

References

[1] Crockard, H. A., Coppel, D. L., and Morrow, W. F. K., *British Medical Journal*, 1973, **4**, 634.
[2] Coppel, D. L., and Gray, R. C., *Scientific Abstracts, First World Congress on Intensive Care*, 1974.
[3] McCaughey, W., Coppel, D. L., and Dundee, J. W., *Anaesthesia*, 1973, **28**, 2.

Blast Injuries of the Ear

BY

A. G. KERR AND J. E. T. BYRNE

THE shock front of a blast wave is irregular and can be deflected by obstacles in its pathway, depending on their size and position. Consequently, the injurious effects of blast tend to be capricious, and one person may be unharmed while those around him are killed or severely injured.

In most explosions solid material is changed suddenly into a gas with an enormous increase in volume and thus of pressure. The blast wave spreads outwards from the site of the explosion, initially faster than the speed of sound. The wave consists of a short positive phase followed by a much longer, but less distinct, negative phase. The positive phase may reach very high pressures, and its duration is usually a few milliseconds. The magnitude of the negative phase cannot be greater than atmospheric pressure, but the duration is much longer than that of the positive phase and is usually tens of milliseconds.

Stimulation Deafness

It is important to differentiate between the different types of airborne stimulation that can affect the ear.

Noise-induced Deafness.—In this condition, usually occupational in origin, prolonged exposure to high-intensity noise results in inner ear damage but without any effect on the middle ear.

Report Trauma.—This occurs in gunners and is due to repeated stimuli whose duration is less than 1·5 ms. Middle ear damage is rare.

Blast Trauma.—This usually results from a single exposure to a stimulus when the duration is greater than 1·5 ms. Middle ear damage is fairly common.

Ear Damage

Three factors determine the effects of blast on the ear. They are: (1) *The rise time*. The more rapidly the pressure reaches its peak, the greater the likelihood of damage to the ears. (2) *The peak pressure*. Higher pressures result in greater damage. (3) *The duration of the positive phase*. The longer the positive phase, the greater is the damage to the ears.

Investigation of Ear Damage

Clinical investigation of ear damage resulting from explosions is extremely difficult because of the number of variable factors. In considering injuries from different explosions there will be differences in the size of the bombs and in the explosive material used. In any specific explosion there

are factors such as the distance of the patient from the bomb, the protection afforded by walls, partitions, or other intervening obstacles, and the direction of the head at the time of the explosion.

The greatest problem arises when assessing the distance of the patient from the bomb. Most people are poor at judging distances under ideal circumstances, but when asked to do so in retrospect, following a harrowing experience, they have considerable difficulty and give wildly inaccurate replies.

Furthermore, in any such investigation problems arise in deciding who should be included. It is usually impossible to trace those who were nearby but uninjured, so that any survey starts off by being selective. To add to the problems one comes across those who, having heard the explosion, perhaps two blocks away, check their hearing and discover a long-standing deafness of which they had been unaware. Man, by his nature, and the Criminal Injuries (Compensation) Act, by its nature, combine to bring out the malingerer and the deaf of long-standing, who may see a silver lining in the cloud that rises from a distant explosion.

It is advisable, therefore, that conclusions should be drawn from a study of a circumscribed group where the distribution of the victims can be established fairly reliably. A particularly tragic explosion fulfilled these criteria and is the subject of a report.[1]

The "Abercorn" Explosion

In the late afternoon on the first Saturday in March 1972 a small bomb of approximately 5 lb (2·3 kg) exploded in the crowded Abercorn Restaurant. Two girls were killed, four people lost both legs, one of these also losing an arm, and another girl lost one leg. Three people each lost an eye. In addition other people suffered serious injuries to the head, broken bones, burns, and lacerations.

While this was a small bomb, it exploded in a confined space, and most of those in the restaurant were deafened at the time of the explosion. Some could hear nothing at all for many minutes afterwards and described seeing the lips of ambulance men and nurses moving, as in a silent film.

Many of those whose ears were affected by the blast have been under review at the E.N.T. departments of the Royal Victoria and Belfast City Hospitals. Many others were traced and all were asked to indicate on a plan of the restaurant where they had been sitting at the time of the explosion. Over 80 persons who were in or just outside the building were traced and their positions determined. This confirmed the problems of establishing the distance from an explosion when direct inquiry is made from the patient. Most knew clearly where they had been sitting, but their views on the distance from the bomb were very inaccurate.

Middle Ear Damage

Rupture of the tympanic membrane occurred in approximately half of the persons examined and just under half of these had bilateral perforations.

In bilateral cases the perforation in the ear facing the explosion was the larger, while unilateral perforations occurred in the ear nearer the blast in all but one instance. In this exception to the rule the patient was thrown from right to left against the wall, and presumably the reflected blast resulted in the perforation of the left eardrum. Altogether, at least 60 tympanic membranes were perforated.

Animal experiments have shown that the tympanic membranes of the young are stronger and more resistant to blast than those of older animals. Cadaver experiments carried out in 1906[2] showed that pressures averaging 33 lb/in² (2·3 kg/cm²) were required to rupture the drums in children, compared to 20 lb/in² (1·4 kg/cm²) for adults. The findings in this survey appear to confirm this impression, as four children, seated among adults with perforated drums, were unharmed.

Sensorineural Deafness

Sensorineural (perceptive) deafness was widespread initially, in that almost all patients interviewed were deafened at the time of the explosion. Many recovered rapidly with return to normal hearing within a matter of hours.

In this survey most of the final audiograms were done a year or more after the explosion. Twenty-four patients, almost 30% of those examined, had high-frequency sensorineural loss of hearing averaging greater than 30 dB for 4000 and 8000 Hz in one or both ears. While many of these patients had some tinnitus, the majority were not aware of any significant hearing problem and some were not even aware of any hearing loss. Nine patients, just over 10%, suffered hearing loss which affected not only the high frequencies but also those for speech, but in some only one ear was affected and not all were aware of a handicap.

A hearing loss of at least 40 dB for the speech frequencies in both ears could be regarded as the level at which the loss is serious. Only 6% of all those examined were so affected and probably a smaller percentage of the total in the restaurant, as most of those who were untraced were sitting furthest from the bomb.

In the past it has been suggested that rupture of the tympanic membrane had some protective effect on the inner ear and that the sensorineural loss was greater if the drum remained intact. This does not appear to be so, as every one of those with serious bilateral deafness had ruptured drums.

Tinnitus

Tinnitus is common and in many cases is the main complaint. It may be severe and cause considerable distress even though the hearing returns almost to normal. It is likely that the emotional stress of exposure to an explosion, with all its associated horrors, aggravates the tinnitus, which in many cases persists indefinitely.

Vertigo

Some patients complained of dizziness, but most of these suffered a head injury as well. However, a few cases of benign positional vertigo were

found without a history of head injury, and in these the blast can reasonably be incriminated.

Management of Blast Injuries to Ear

Prophylactic

The middle ear muscles, stapedius and tensor tympani, play little part, if any, in ear protection in blast situations. The reflex arc producing contraction of these muscles takes 10 ms and by this time the positive phase of most explosions has passed. There is evidence to suggest that when an explosion occurs in a very noisy situation, where the middle ear muscles are already contracted, ear damage is less than would otherwise have been the case.

Cotton-wool in the external auditory meatus affords virtually no protection and is potentially harmful in that it gives a false sense of security. Ear muffs and properly fitted ear plugs are of value in a predictable situation, for example, with gun crews. Bomb explosions tend to be less predictable. When the whereabouts of an unexploded or suspect bomb is known there are two groups of people to be considered: (1) essential personnel, such as police, military, and fire services, who need to be close to the bomb; (2) the general public, who should remove themselves well beyond the range of danger.

The essential personnel must be able to communicate satisfactorily. Ear muffs and ear plugs cause problems in communication, but the "Gundefender" ear plug (Amplivox) maintains almost normal hearing while affording protection.[3] It works on the simple principle that a suitably perforated metal disc will let through normal sounds but will present a barrier to the high intensity blast wave due to increasing frictional resistance. It is desirable, therefore, that personnel likely to be in the vicinity of blasts are fitted with these ear defenders as a prophylactic measure.

Middle Ear

Of the 60 perforations in the Abercorn explosion, 49 (82%) healed spontaneously without any active intervention. Our approach has been conservative—cleaning out the ears only if foreign material has been driven in by the blast, using systemic antibiotics or ear drops only if there is evidence of active infection, and advising the patient to keep water out of the ears.

One potential problem arises from this conservative approach. Part of the ruptured tympanic membrane may be driven into the middle ear by the blast wave, and spontaneous closure of the drum may leave this enclosed within the middle ear as a potential cholesteatoma. This has been seen in one case so far from the Abercorn explosion, and in a second case an epithelial cyst developed in the middle ear but was visible through the unhealed perforation. Two such cases out of 60 perforations are not seen as sufficient to justify a change of policy but have been enough to advise an

open mind on the subject and the maintenance of suspicion when reviewing these cases.

When the perforation fails to show evidence of healing within three to six months, surgical closure is indicated. Usually only a type I tympanoplasty (myringoplasty) is required, but occasionally one or more of the ossicles have been dislocated and the ossicular chain must be reconstructed. The tympanic membrane can be repaired with temporalis fascia, autologous or homologous, or homologous dura mater. Generally the results are good, with over 90% success in closure of the perforation.

Sensorineural Deafness

It is difficult to control any trials of treatment of sensorineural deafness, as so many untreated patients do so well. Recovery of hearing is usually rapid—during the first few hours. Many patients have improved from very severe deafness to almost normal hearing before it has been possible to do an audiogram. Obviously, therefore, the timing of the first audiogram is important in assessing the effects of any treatment.

A controlled trial following an explosion in a chemical works in Basle suggested that intravenous infusions of low molecular weight dextran facilitated recovery of sensorineural hearing loss.[4] This requires admission to hospital and obviously is not a practical proposition for routine use when large numbers have been exposed to a blast. It is indicated when there is still severe sensorineural loss a few hours after the explosion and when there are no contraindications related to the other injuries. In less severe cases it is our practice to prescribe vasodilator drugs and steroids, which appear to improve the recovery, though there is no controlled statistical evidence for this.

Conclusions

Our experience with blast injuries shows that the ear has excellent properties of recovery after exposure to blast, with a high rate of spontaneous repair of the tympanic membrane and improvement of sensorineural deafness. Unfortunately this does not happen in every case, and some patients are left with residual perforations and permanent sensorineural deafness, often accompanied by tinnitus.

All of the E.N.T. surgeons in Belfast have been involved in the management of blast injuries of the ear, and we wish to express our gratitude for the generous and co-operative way in which they have agreed to our reviewing both their notes and their patients.

References

[1] Kerr, A. G., and Byrne, J. E. T., *Journal of Laryngology*, in press.
[2] Zalewski, T., *Zeitschrift für Ohrenheilkunde*, 1906, **52,** 109.
[3] Coles, R. R. A., *Proceedings of the Royal Society of Medicine*, 1970, **63,** 56.
[4] Kellerhals, B., Hippert, F., and Pfaltz, C. R., *Practica Oto-rhino-laryngologica*, 1971, **33,** 260.

Missile Wounds of the Head and Spine

BY

D. S. GORDON

Introduction

The head injuries of civilian life fall into two chief groups—those with generalized brain damage and those with localized brain damage. Generalized brain damage usually results from a fall or road traffic accident in which the head strikes a flat surface. This "blunt" head injury brings about a rapid deceleration of the brain. The patient loses consciousness immediately. If he dies, areas of damage are found throughout the brain. Localized brain damage is caused by sharp impact from a stone or bottle. The essential lesion is a compound depressed fracture of the skull, with damage confined to brain tissue immediately deep to the fracture. The patient often remains fully conscious. Missile wounds of the head produce signs of both localized and generalized brain damage. This article describes experience with these wounds in Belfast between 1969 and 1974. It emphasizes some of the special features of their clinical presentation and management.

The Missiles

In the second world war and in Korea and Vietnam over 80% of the head wounds were caused by metallic fragments from shells, bombs, and mines. Bullet wounds accounted for the remaining 15–20%. In the Yom Kippur battles in 1973 metallic fragments, particularly those from antitank missiles, were responsible for most of the injuries. Head wounds caused by metallic fragments carried a much lower mortality than bullet wounds. In Vietnam only 54% of bullet wounds proved operable in the forward hospitals as compared with 86% of wounds due to metallic fragments.

The head injuries treated in the civil disturbances in Belfast present a different picture. Less than 10% result from explosions. Terrorist bombs, packed in suitcases or similar containers, seldom give rise to a shower of metallic fragments capable of penetrating the skull. Instead they cause various types of blast injury, including avulsion of limbs. Bullets are responsible for 90% of the head wounds in Belfast. The injuries are of great severity, particularly since the introduction of high velocity rifles in 1971.

The damage caused by a bullet depends on the amount of energy which it transfers to the tissues. The kinetic energy of a bullet derives chiefly from its velocity. The greater the velocity of the bullet, the more energy and therefore the more damage will be imparted to the tissues. A low velocity bullet is one which travels at less than the speed of sound. Most

revolvers and sub-machine guns fire low velocity bullets. A high velocity rifle bullet has a highly destructive effect.

Pathology

The anatomy of the brain damage depends not only on the energy carried by the missile but by the angle at which it strikes the head. A tangential blow causes a "gutter" fracture; bone fragments are driven into the brain for several centimetres, and haemorrhage from scalp and cerebral arteries is often profuse. If the missile travels a more perpendicular path it penetrates, and may traverse, the skull. In addition to the obvious damage along the track of the missile a radial expansile force causes temporary "cavitation" in the brain, with damage some distance from the track. Bone fragments driven into the brain will, unless removed, encourage infection and abcess formation. Haematomata along the missile track have been uncommon in the Belfast cases. Neurological deterioration has been more frequently associated with rapidly increasing cerebral oedema, which seems a greater hazard in missile wounds than in other forms of head injury.

Clinical Presentation

The condition of a patient rendered unconscious by a blunt head injury usually remains stable. Symptoms of shock are slight; rapid neurological deterioration is relatively uncommon. By contrast a cranial missile wound causes a labile clinical state. Loss of blood often leads to severe shock. The patient may be conscious on arrival at hospital but is irritable, with a pronounced tendency to cough and vomit. Airway obstruction by blood, mucus, or vomitus can bring about a sudden and alarming deterioration in the level of consciousness, usually associated with increasing intracranial pressure. Progressive cerebral oedema is encouraged by altered blood gas levels (raised P_{CO_2} and reduced P_{O_2}) coupled with increased central venous pressure from stertorous breathing, coughing, and vomiting. Extrusion of brain tissue through the open head wound provides dramatic confirmation of the raised intracranial pressure recorded by an implanted pressure transducer.

Assessment of Prognosis

In most armed conflicts it has seldom been possible to start resuscitation and definitive neurosurgical treatment until some hours after injury. The Royal Victoria Hospital, standing in West Belfast, has had the unique experience of being close to the areas where the civil disturbances have occurred. One-third of the injured patients reached hospital within 15 minutes of injury and three-quarters were admitted within half an hour. About half the deaths from missile wounds of the head occur within six hours.

With modern treatment patients admitted unconscious after blunt head injury usually survive. But in 1969 the results of early treatment for

patients rendered unconscious by missile wounds was not accurately known. For this reason 93 consecutive patients were resuscitated on admission, and operation was performed if the patient's condition permitted. The level of consciousness turned out to be the most important guide to prognosis. Of the patients who were alert on admission 88% survived; 66% of patients drowsy on admission survived; only 21% of patients who were unconscious but reacted to painful stimuli survived; and there were no survivors from a group of patients admitted in coma. This last group contained 24 patients, 16 of whom had fixed dilated pupils. The mortality for the series was 56%.

Early Management

In a brief clinical examination the level of consciousness, state of the pupils, and reactions of the limbs are recorded and other injuries are assessed. Patients with severe penetrating head injuries had immediate tracheal intubation, sometimes assisted by intravenous diazepam or by pancuronium (Pavulon). Intubation followed by controlled ventilation proved the best way to reduce the intracranial pressure. The intracranial pressure was measured in some patients by a pressure transducer introduced through the wound and by inspection of the exposed brain. Controlled ventilation reduces intracranial pressure in two ways. Firstly, it lowers central venous pressure, which in turn prevents engorgement of the intracranial venous system. If the patient is allowed to cough or breathe stertorously the central venous pressure rises. Secondly, controlled ventilation allows blood gas levels to be maintained at agreed levels. Reduction of the P_{CO_2} level to 25 mm Hg by hyperventilation encourages cerebral vasoconstriction, which reduces the volume of the brain.

Two or three intravenous infusions are started immediately. Severe haemorrhage from head wounds has required 10 l of fluid in the first hour in several patients. Dexamethasone (12 mg initially, followed by 4 mg 4-hourly) may help reduce cerebral oedema and protect the lungs from inhalation damage. Antibiotic therapy is also started in the resuscitation room.

X-ray of the skull seldom influences early management. Patients with severe head injury should not be taken to the *x*-ray department until restoration of blood volume is complete and the respiratory state has been stabilized.

Transport

It is sometimes said that patients with missile wounds of the head can be moved without deterioration of their condition. This is occasionally true of patients who have been injured by low velocity bullets or metallic fragments provided they have normal blood volume and no impairment of vital signs. Their early management is similar to that of a depressed fracture of the skull. But most of the patients injured in Belfast required immediate resuscitation and early operation. Some patients injured outside Belfast have been transfused and intubated at the site of injury or at the nearest hospital and maintained on controlled ventilation during helicopter or ambulance transfer. On other occasions a neurosurgeon has performed the operation in the hospital to which the patient has been admitted.

The Operation

In the resuscitation room a dressing with a firm bandage usually controls haemorrhage. In most patients controlled ventilation, started as one of the resuscitative measures, is continued during and after the operation. The aim of surgery is to stop haemorrhage, to prevent infection in the wound, and later to restore the skull contour.

Inspection of the damaged brain requires a wide exposure, which is usually gained by reflecting a semicircular scalp flap and removing some of the bone surrounding the entry and exit wounds. In 1942 the incidence of brain abscess in penetrating wounds was 27%. Many abscesses were found to contain bone fragments which had remained in the brain after inadequate débridement. With the introduction of antibiotics and the formation of neurosurgical teams the incidence of brain abscess dropped dramatically. In Belfast between 1969 and 1974 there have been no brain abscesses in patients with cerebral missile wounds. At operation all accessible bone fragments must be removed, and this may involve exploration of the wound as far as the midline. Metallic fragments penetrate even further than bone fragments; fewer than half the bullets lodged in the brain have been removed. Fortunately they are considerably less likely to encourage brain abscess formation, probably because they come to rest surrounded by relatively normal brain tissue, which does not favour bacterial invasion.

Intracranial haematomata have been uncommon in missile wounds in Belfast, possibly because early controlled ventilation has reduced the tendency to venous haemorrhage. Nevertheless, the fact that a haematoma can develop in the missile track is an indication for early operation. Rarely a rapidly collecting haematoma from a deep cerebral artery requires an immediate operation to clip the damaged vessel.

In Belfast we agree with the American surgeons who insisted on scrupulous dural closure for the cranial missile injuries treated in Korea and Vietnam. Full-thickness scalp cover for the defect is also essential and may involve rotating a flap from an uninjured part of the head.

All patients with severe gunshot wounds of the head had controlled ventilation for two or three days after the operation to regulate blood gas tensions and to lower the central venous pressure. Pressure studies in the early postoperative period showed that the intracranial pressure tended to rise with even slight respiratory obstruction.

Sequelae

The blunt head injuries of industrial or road traffic accidents are often followed by symptoms which indicate a generalized disturbance of brain function. These include apathy, memory impairment, poor concentration,

unsteadiness, and slurred speech. The after effects of local head injuries depend largely on the site of damage and include hemiparesis, dysphasia, and other signs of cortical damage. The after effects of missile injuries are also determined chiefly by the anatomy of the wound. Though some patients are handicapped by hemiparesis, very few have the dull, apathetic appearance which often follows severe blunt head injury. The high intracranial pressures associated with cerebral oedema in missile injuries may, if unchecked, prove fatal. But it is encouraging to find that the state is often reversible and that survivors show little evidence of disintegration of brain function as a whole. Epilepsy occurs in 40%–50% of patients with severe missile wounds of the head.

Spinal Injuries

While much of the brain damage produced by penetrating head injury has only a temporary effect on the brain function of survivors, the same unfortunately cannot be said about injury to the spinal cord. In Belfast there have been over 30 patients with gunshot wounds of the spinal cord or cauda equina. The spinal cord lesions are usually complete and permanent. Lesions of the cauda equina, however, tend to be incomplete, with some of the nerves escaping injury altogether.

Most patients with spinal injury have an operation to remove necrotic tissue and to prevent a cerebrospinal fluid fistula. In the cervical region decompression of a cervical nerve root may help recovery of function in muscles controlling the hand. However, there is no convincing evidence that operation helps recovery of function in the spinal cord itself. In the lumbar region removal of bone fragments compressing the dural sac or individual nerve roots probably contributes to recovery of function in some patients. Incomplete cauda equina injuries caused by missiles are often followed by considerable referred pain lasting for years. This is relatively uncommon in patients with closed fractures received in road traffic accidents.

Gunshot Wounds of the Limbs

BY

R. H. LIVINGSTON AND R. I. WILSON

This article deals with the management of gunshot wounds of the limbs and it is based on experience gained in the Royal Victoria Hospital, Belfast, since August 1969.

Pathological Anatomy

In gunshot wounds the injuries vary from minor soft-tissue damage to gross disruption of tissues of all types. The degree of severity depends on several factors. The type of gun used is important: the faster the muzzle velocity the greater is the damage caused. The damage will also be greater if the bullet strikes a hard object such as metal on clothing or equipment before entering the body or strikes a bone on entering.

There may be multiple wounds caused by a machine pistol or shot gun. High-velocity rifles such as self-loading and Armalite rifles produce very severe injuries from cavitation caused by an initial positive pressure wave followed by an equally strong negative pressure wave. These pressure waves can be severe enough to cause permanent damage to structures such as the spinal cord even though the bullet does not directly injure the cord.

Diagnosis

Careful inspection of all wounds is essential to determine the type of missile used and if possible its direction of travel through the tissues. Detailed examination must be carried out for damage to major vessels, nerves, bones, and joints.

A history from the patient, if possible, and others involved in the incident may be helpful. From this one may learn the type of weapon used and also acquire some idea of the volume of blood loss.

Early Management

The wounds should be dressed with a large pad and bandaged. If there is considerable bleeding a pressure dressing should be applied, and this usually controls most bleeding. If there is a fracture a temporary splint should be used.

The general management at this stage usually includes treatment for shock and blood loss. Intravenous drips must be started and the patient given adequate fluid and blood.

All wounds must be carefully examined. Small superficial wounds should have the skin edges trimmed and a dressing applied. Superficial through-and-through wounds should also have the skin edges excised and

the so called "pull-through technique" may be used. This means that forceps are passed through the wound, and a swab soaked in a mild antiseptic such as cetrimide and chlorhexidine (Savlon) is pulled through the wound. This refers to low-velocity injuries with minimal damage to tissues.

Deep Wounds

These must be thoroughly explored, if necessary by enlarging the wound or in some cases joining the entrance and exit wounds. All dead tissues must be removed, and the dissection may be extensive. The skin edges should be carefully excised. The wound is then left open and packed lightly with tulle. To avoid infection the skin should never be sutured at the initial treatment. Even with the most careful surgery some dead tissue may remain, and there will probably be some haematoma formation. Suturing of wounds at this stage is positively dangerous, and may lead to infection and even to gas gangrene. The wound is normally sutured at five to seven days. This delayed primary suture will produce an excellent result.

Wounds of Bone or Joint

Careful débridement is carried out. Small isolated pieces of bone may be removed, but those with soft tissue attachments must be left. The wound is then treated as already described and a splint applied.

Internal fixation is used only if there has been a concomitant vascular injury requiring vascular repair. It is necessary to fix the fracture to make the limb steady, and allow the vascular repair to heal. If internal fixation is not possible, traction should be used with great caution when a vascular repair has been performed. An injudicious pull on a repaired vessel will narrow its lumen and lead to thrombosis.

Joints

Joint injuries must be carefully explored and all foreign material and loose fragments of bone removed. It may be necessary to wash out the joint with saline to ensure removal of all fragments.

Wounds Involving Nerves

Fortunately most nerve injuries are not permanent. If nerve tissue is lost, there is usually a considerable gap, and this means that primary repair is rarely possible. However, the nerve ends may be marked with a black silk suture to aid identification if delayed repair is carried out.

Wounds of Major Vessels

When major blood vessels are damaged it is usual to approach them directly, pressure and packing being applied to control the blood loss until definitive control has been achieved. This can be done in most cases without using Spencer Wells type forceps; DeBakey or bulldog arterial clamps are used together with tapes for intermittent control. Because of the nature of the injuries the incisions are seldom conventional arterial exposures. Deep veins are as important as arteries and they should be

dealt with in a similar manner. The urgency to control the haemorrhage means that proper débridement and exploration of the wound is delayed until the haemorrhage is controlled.

The next step with the vessel involves some proximal and distal dissection and possibly the passage of tapes or soft catheters round them. The damaged ends are then trimmed back until healthy tissue is exposed. This may preserve a section of a vessel in continuity as a ribbon, or a gap of varying length may exist.

The content of the vessels distal to the injury should now be considered. In cases which reach the operating theatre within an hour and an obvious back flow of blood occurs from the distal artery 20–40 ml of heparin saline solution is injected distally. In cases arriving any later than this a Fogarty balloon catheter size 3 or 4 is passed before heparin saline is injected. Veins are dealt with similarly. The use of systemic heparin is not advised in such cases.

Fig. 1 illustrates the usual methods available for repairing damaged blood vessels. Simple end-to-end anastomosis is often possible with the limb joints flexed, but this attractive and easy procedure can lead to failure

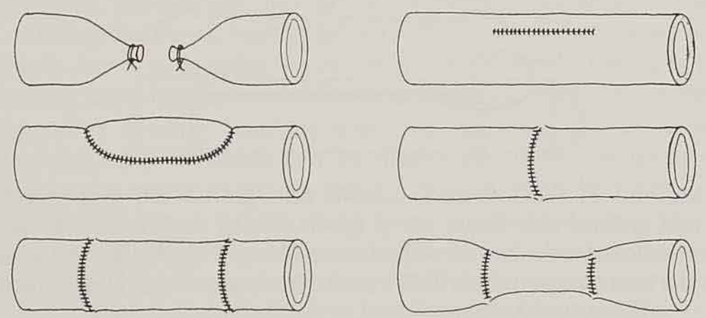

FIG. 1—Top left: ligation illustrated to be avoided. Top right: simple suture seldom possible in arteries but sometimes in veins. Middle left: vein patch. Middle right: end-to-end anastomosis. Bottom left: ideal graft inset difficult to achieve. Bottom right: usual situation with vein graft, and if seriously narrowed can lead to failure.

when the joints are extended, and it has been used very rarely. Some failures after this procedure have been retrieved by inserting a graft. The graft should be autogenous vein, since any foreign material is likely to become infected. The source of vein graft can present a problem, particularly as many of these injuries are in the popliteal area and the patient may well be prone. Rarely should the graft be taken from the injured limb, because the last intact venous channel may be sacrificed. Occasionally a proximal length of saphenous vein is taken from the sound limb at the outset, or the arm veins may be used. Flexing the knee allows the distal saphenous vein to be obtained when arm veins are being used for resuscitation of the prone patient.

Fig. 2 shows a proved method of obtaining a graft made from two strips of this rather muscular vein; it functions well in the popliteal and lower femoral arteries. Damaged deep veins should be repaired, and when every vessel has been torn one good deep venous channel should be obtained if possible.

Silk has been the usual suture material, 5/0 atraumatic for arteries and 5/0 or 6/0 for veins. This material is a little more manageable than the smoother synthetic materials in these emergency cases.

Grafted vessels are best covered with neighbouring tissues, and this happens naturally in the majority of cases. Occasionally a catgut suture is

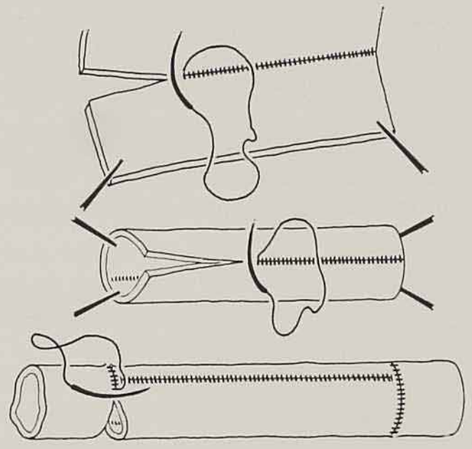

Fig. 2—Method of fabricating a sizable vein graft from two strips of vein. Pin the vein intima side-down on a sterile board and suture longitudinally. Then turn intima inwards and repeat procedure. Finally insert the graft and remember to trim the arteries to fit the graft, because cutting the graft would undo the suture knots and lead to disruption of the graft.

necessary to hold a muscle or a fascial layer against a vessel, but otherwise the wound is dealt with in the previously described manner.

Fasciotomy has not been practised often enough, and severe post-operative oedema has been encountered in muscle compartments, leading to infarction. All cases seen after a delay of several hours should have the anterior tibial compartment decompressed. When muscles above the knee are severely damaged, both the anterior tibial and the posterior tibial compartments should be decompressed by fasciotomy. If one of the tibial compartments is severely damaged by a gunshot wound, the other tibial compartment should be decompressed by fasciotomy.

Later Management

Delayed Primary Suture

This technique is imperative in dealing with gunshot wounds. Five to seven days after initial injury the wounds are inspected, and if there is no gross infection they are sutured. Indeed, it may be necessary to make

release incisions to allow closure of the original wound. Skin grafting is necessary in many cases and may require several operations.

Severe, extensive injuries, with destruction of the major vessels, nerves, bones, and gross muscle damage, may necessitate primary amputation. Consultation with a colleague before deciding on amputation is advisable.

Infection

With careful surgical techniques infection is not a serious problem. All patients are given antibiotics as a routine. A combination of ampicillin and flucloxacillin is given in full doses until delayed primary suture is performed. In cases with fractures or joint injuries antibiotic treatment may be continued for two to three weeks.

Gas gangrene has been extremely rare and has occurred only when the wound has been sutured primarily. When it does occur, treatment is by wide excision of the affected tissues combined with gentamicin by intramuscular injection. Hyperbaric oxygen therapy has been available and has been used in these cases.

Fractures

Civil unrest has meant a large increase in the number of fracture cases, and has doubled the average number of fractures of the shaft of the femur. Because of the pressure on beds plaster-of-Paris techniques using a number of prosthetic limb principles have been introduced. The quadrilateral ischial bearing long-leg plaster-of-Paris is used for fractures of the femur, and the patellar tendon bearing short-leg walking plaster is used for fractures of the tibia. Patients can be discharged from the ward in a few weeks time, some being in for as short a period as three weeks.

Many of the fractures of the knee joint are carried out as a form of punishment by terrorist organizations. However, the knee-cap itself is rarely injured, but the wound often involves the knee joint or shatters the lower end of the femur and often damages the popliteal vessels or nerves.

Nerve Injuries

Nerve conduction tests are very helpful in the prognosis of nerve injuries. Most of them are in the nature of neuropraxia and recover in time. But if there is no recovery the nerve may require exploration when all the wounds are healed. If the defect is too large to repair, other procedures such as tendon transposition may be necessary to restore function.

Vascular Injuries

Secondary haemorrhage has occurred from vascular repairs owing to infection. In a few cases late thrombosis has followed repair of vessels; its association with traction has been mentioned above.

Amputation

Amputation may be necessary later because of persistent soft-tissue infection or severe osteomyelitis, particularly if associated with an irrecoverable nerve lesion. Vascular complications such as thrombosis of a graft or delay in attending to a vascular injury until a false aneurysm or arteriovenous fistula forms may necessitate amputation.

Gunshot Wounds of the Trunk

BY

H. M. STEVENSON AND W. WILSON

IN the management of wounds of the chest and abdomen the basic principles outlined for reception and resuscitation of the patient are of paramount importance. Blood loss and shock must be treated with the utmost energy and urgency.[1]

THORACIC WOUNDS

A chest drain is inserted into one or both pleural cavities when obvious penetration by a bullet has occurred or when there is any clinical evidence of blood or air in the pleural cavity. An estimate is made of the probable track of the missile or missiles, and careful clinical examination, especially of the abdomen, is carried out. Low-velocity missiles are often retained, and *x*-ray films of chest and abdomen should accompany the patient to the operating theatre.

Type of Missile

Gun-fired missiles are commonly divided into low- and high-velocity groups. The former are fired from revolvers and pistols and a variety of short-barrelled automatic weapons and the latter from rifles. Within these two groups the bullets differ in size, weight, and muzzle velocity and also in actual construction. The kinetic energy of the missile is a product of its mass times the square of the velocity; the gyroscopic or spin energy, as well as the type of bullet, also determines its effect on the target.

The low-velocity bullet, while certainly lethal on many occasions, is often deflected by soft-tissue planes. For example, a young man was shot from a height, the bullet passing through the tip of his chin, behind his right clavicle and neatly down the side of the superior vena cava under the mediastinal pleura, finally passing out through the lung. Another patient had a single bullet wound in his left anterior axillary fold. His first chest *x*-ray showed a left haemothorax but no bullet. Luckily a further view was taken, which showed it lying over his right acromion process. In view of the projected track of this missile through the superior mediastinum it was decided to explore his chest through a median sternotomy. This was, however, a mistaken decision, since the track was well posterior and the missile had penetrated the mediastinum between the oesophagus and the vertebral column—very inaccessible from the anterior approach.

Injury by a high-velocity missile is a much more lethal event, and far fewer of these patients have come to surgery. Where a rifle bullet has passed cleanly through the chest the characteristic effect of high energy dissipation may not be observed, but, if the sternum, ribs, or particularly

the vertical column is struck, widespread pulmonary effects can follow, such as disruption and rapid development of a bilateral wet lung syndrome. Associated damage to the spinal cord is common in this type of injury.

Indications for Surgery

Absolute indications for surgery in penetrating chest injuries are: (1) Significant or continued haemorrhage; (2) a dangerous predicted track; (3) associated intra-abdominal injury.

The management of the through-and-through wound, with minimal drainage of blood and air, when the patient's condition remains satisfactory, is debatable. In a series reported by Heaton and others[2] from Vietnam 65% were treated by intercostal tube drainage, 15% by aspiration, and 20% by thoractomy, with a mortality of 7·9%. In our different circumstances, however, where the number of such casualties at any one time has been smaller, and where full surgical facilities are readily available, thoracotomy has usually been considered desirable except when the injury is obviously trivial or is confined to the chest wall.

The wisdom of this policy was illustrated by the case of a young man who was admitted with an entry wound in his third left intercostal space anteriorly and an exit wound in his eighth left intercostal space in the posterior axillary line. He responded well to minimal resuscitation, and only a little blood drained from his left pleural cavity. There was some guarding, however, in the left subcostal region. On left thoractomy there were two small holes, one above the other, in the pericardium, two holes side by side in the diaphragm, and a track through the lingula. Further exploration showed that the bullet, presumably of very low velocity, had grooved the left ventricle, traversed the diaphragm, and bounced back off the spleen, which was superficially lacerated.

Surgical Approach

This is obviously dictated by circumstances. A postero-lateral thoracotomy gives much better access to the hemithorax than does an anterior approach and is preferable, even with bilateral injuries, provided priority can be given to opening one side first. When there appears to be serious bleeding into both pleural cavities a bilateral trans-sternal approach has been used. The low thoraco-abdominal incision has been useful when the abdomen has also been penetrated; it allows good access to the liver or spleen, liver injuries having been particularly troublesome.

One type of injury in which the selection of surgical approach may be difficult is a gunshot wound in the supraclavicular region accompanied by serious bleeding both externally and into the chest cavity. Immediate temporary control of haemorrhage from the subclavian artery and vein at the point of injury is required, but full control to allow repair of the vessels necessitates a much wider access. The first part of the subclavian artery, especially on the left side, lies well posteriorly, and one would be tempted to use a thoracoplasty type of incision for this reason. This is impracticable, however, in the usual circumstances of injury, and we

always employ a median sternotomy with extension up into the neck, excising part of the clavicle if necessary, and a further extension into the third intercostal space anteriorly, giving a wide, trap-door type of opening.

Procedure

In the surgical management of pulmonary injuries the use of a double-lumen endotracheal tube is essential to control excessive air leakage and minimize aspiration of blood into the other lung. We have adopted a conservative approach, and, where at all possible, pulmonary wounds are explored, bleeding and air leaks controlled, and the lungs repaired by suture. Few lobectomies have been performed and no pneumonectomies.

Few cardiac wounds have come to surgery. Those that have were preserved from total exsanguination by the temporary effect of tamponade. A young woman was shot from behind with a large-calibre automatic pistol. The bullet traversed her ninth thoracic vertebra and passed upwards and forwards through both atria. On admission to hospital she was very shocked and had a right haemothorax, which drained freely after inserting an intercostal tube. On right thoractomy a hole was seen in the pericardium just anterior to the phrenic nerve and the pericardial cavity was full of blood. The pericardium was opened anteriorly and the wound in the right atrium closed. The opening of the pericardium, however, appeared to increase the blood loss, and a further tear was palpated in the back of the left atrium. While this was controlled with the finger the lung was displaced forwards and the pericardium opened posterior to the pulmonary veins. It was impossible to apply a clamp, and the use of a Foley catheter, as originally advocated in dealing with an atrial tear at valvotomy, proved life-saving. A No. 20 Foley catheter with a 30 ml balloon, with a syringe full of saline attached to the balloon, was rapidly inserted in the tear; the balloon was inflated and gentle traction applied to the catheter. The haemorrhage was completely controlled and closure effected by an encircling suture pulled tight as the deflated catheter was removed. This girl survived, though with permanent paraplegia.

The chest wall wounds have mostly been small and have been excised and sutured. Where damage has been more extensive the necessary excision has been carried out, the chest cavity closed, and the superficial layers closed by delayed primary suture.

Postoperative Course

The postoperative course of most patients was uncomplicated. Some degree of lung contusion was present in all, but development of pulmonary insufficiency and the wet lung syndrome were dependent on the velocity of the missile, the extent of the chest wall injury, and the severity of other injuries.

When this syndrome was expected to develop, a decision to institute special intensive care, including controlled ventilation, was usually taken at the end of operation. The factors responsible for the development of the wet lung syndrome in high-velocity injuries to the chest were recently outlined by Wanebo and van Dyke.[3]

Abdominal Injuries

Of 4851 casualties from civil disturbance treated at the Royal Victoria Hospital during 1969–73, 120 patients sustained severe abdominal injuries and 16 died.

The vast majority of abdominal injuries occurred as a result of bullet wounds, but a small number were due to sharp fragments from bomb explosions. In 52% of our cases more than one viscus was damaged, and in 28% there were associated lung injuries.

Abdominal Wall

Many wounds were limited to the anterior abdominal wall, and half of these were excised and treated by primary suture. The remainder were treated by delayed primary suture or allowed to heal by second intention; 18% of these wounds became infected.

Stomach, Duodenum, and Pancreas

Damage to the stomach was relatively infrequent, often a simple through-and-through wound, which was treated by simple suture.

Injuries to the pancreas and duodenum were often associated with spinal and liver damage. Perforation of the posterior wall of the duodenum can easily be missed, and if a severe retroperitoneal haematoma has formed a duodenal injury must be carefully looked for. Complete transection of the pancreas was infrequent; it was generally treated by resection of the distal portion.

Liver

Injuries of the liver, which were often associated with injuries of the gastrointestinal tract or lung, ranged from small surface lacerations to complete avulsion of part of the liver. Any degree of liver injury may result in severe haemorrhage, and massive blood transfusion is often necessary. Control of bleeding may be very difficult. Removal of damaged fragments, followed by deep catgut sutures, may be sufficient. Formal hepatic lobectomy was seldom practicable in our experience because of the extra degree of shock in these patients and multiple coexistent injuries.

Small Bowel

Injuries of the small bowel occurred in 54% of abdominal gunshot wounds, and in most of these the small bowel lesions were multiple; colonic injuries were often found in association. The most frequent injuries were small puncture wounds, which were treated by simple two-layer suture. In a number of cases segments of small bowel were so lacerated or devascularized by damage to the mesentery that resection was necessary. It is interesting that many cases of small-bowel perforation had neither

air nor faeces in the peritoneal cavity at the time of laparotomy. Patients with small-bowel injury usually made an excellent postoperative recovery, though the rate for postoperative wound sepsis was 25%.

Colon

The colon was the most frequently damaged part of the gastrointestinal tract, the right colon being more frequently damaged than the left. Injuries varied from single perforation to severe contusion and laceration of the bowel wall; multiple lesions were frequent. Division of the mesocolon or severe vascular damage sometimes resulted in devascularization of the bowel wall. These colonic injuries were treated in a variety of ways. Single perforations, with no associated injury to the mesocolon, can be safely oversewn in two layers by means of non-absorbable suture material for the seromuscular layer. With severe contusion of the bowel wall or damage to the mesocolon interfering with the blood supply, primary resection with end-to-end anastomosis in two layers was the treatment of choice, particularly in lesions of the caecum and ascending colon, which were almost half of the total.

About one-third of our cases had a proximal colostomy or caecostomy, especially when the left colon had been resected. In all cases drainage of the peritoneal cavity was carried out and postoperative antibiotics were given routinely. After primary closure, or resection and anastomosis without proximal decompression, the intraperitoneal sepsis rate was extremely high, and a number of patients developed faecal fistula, though some of these healed spontaneously. The sepsis rate was reduced by proximal decompression. Simple exteriorization of a damaged loop of colon was seldom used, and, though perhaps safer, it inevitably led to gross sepsis in the abdominal wall.

Renal Tracts

A number of patients required nephrectomy for severe laceration of the kidney. An attempt was always made to define the extent of renal damage, as profuse perirenal bleeding need not necessarily represent irreparable damage. In one case after careful inspection of the kidney it was found that the upper pole had been avulsed and the rest of the kidney was viable. Upper polar nephrectomy was performed. In another case the kidney was completely divided but the vascular supply was intact, and the kidney was successfully repaired over a nephrostomy tube.

Damage to the ureter was often associated with large-bowel injury and sometimes missed at the initial inspection. When later diagnosed, local sepsis was almost inevitable, and secondary repair was usually impossible. In this situation the kidney should be drained by nephrostomy or ureterostomy with a view to later replacement or, better still, implantation of the proximal ureter into the opposite side.

Conclusions

Since the Royal Victoria Hospital has been almost at the centre of the "battle zone" and the ambulance services, both civil and military, have been extremely efficient, casualties have reached hospital in a remarkably short time. On average 39 minutes has elapsed between the receipt of a bullet wound and the start of hospital treatment. Consequently some patients with injuries of terrible severity—wounds of the aorta, the vena cava, the heart, and massive disruption of the liver—have presented as surgical problems. In other war situations these patients would probably have died before reaching hospital. Early treatment often allowed us to prevent the onset of severe oligaemic shock, and to operate before prolonged contamination of the pleural and peritoneal cavities had made sepsis inevitable. Apart from the immediate deaths from uncontrollable haemorrhage the main causes of death were infection and renal and hepatic failure.

References

[1] Gray, R. C., and Coppel, D. L., *British Medical Journal*, 1975, **1**, 502.
[2] Heaton, L. D., *et al.*, Military Surgical Practices of U.S. Army in Vietnam, in *Current Problems in Surgery*, Chicago Year Book Press, 1966.
[3] Wanebo, H., and van Dyke, J., *Journal of Thoracic and Cardiovascular Surgery*, 1972, **64**, 537.

Appendix

Papers written on traumatic surgery by members of the staff of the Royal Victoria Hospital, Belfast, on the basis of experience in the past five years.

Byrne, D. P., *et al.*, Penetrating Craniocerebral Missile Injuries in the Civil Disturbances in Northern Ireland, *British Journal of Surgery*, 1974, **61,** 169.

Coppel, D. L., and Balmer, H. G. R., Civil Disturbance and Anaesthetic Workload in Royal Victoria Hospital, Belfast, *Anaesthesia and Analgesia Current Researches*, 1973, **52,** 142, 147.

Crockard, H. A., and Taylor, A. R., Serial C.S.F. Lactate Estimation in Head Injury Prognosis, *Proceedings of the International Symposium on Cerebral Blood Flow, Rome*, Basel, Karger, 1972.

Crockard, H. A., Coppel, D. L., and Morrow, W. F. K., Evaluation of Hyperventilation in Treatment of Head Injuries, *British Medical Journal*, 1973, **4,** 634.

Crockard, H. A., The Surgery of Civil Violence—Gunshot Wounds of the Head, in *Recent Advances in Surgery*, ed. S. Taylor, pp. 330–334. Edinburgh and London, Churchill Livingstone, 1973.

Crockard, H. A., and Taylor, A. R., Importance of Blood CO_2 Levels in Head Injury Management, *British Journal of Surgery*, 1971, **58,** 857.

Gordon, D. S., and Crockard, H. A., Early Management of Severe Head Injury, *Proceedings of the Royal Society of Medicine*, 1974, **67,** 8.

Gordon, D. S., and Blair, G. A. S., Titanium Cranioplasty, *British Medical Journal*, 1974, **2,** 478.

Gordon, D. S., Depressed Fractures and Missile Wounds of the Skull, *British Journal of Hospital Medicine*, 1974, **12,** 177.

Gray, R. C., and Coppel, D. L., The Surgery of Civil Violence—Blast Injuries to the Lungs, in *Recent Advances in Surgery*, ed. S. Taylor, pp. 339–344. Edinburgh and London, Churchill Livingstone, 1973.

Johnston, S. S., Serious Eye Injuries Caused by the Civil Disturbances in Belfast, *Ulster Medical Journal*, 1971, **40,** 72.

Kerr, A. G., and Byrne, J. E. T., Concussive Effects of Bomb Blast on the Ear. Awaiting publication.

Kerr, A. G., Bomb Blast Injuries of the Ear, *British Journal of Hospital Medicine*, 1974, **11,** 911.

Maguire, C. J. F., and Johnston, S. S., The Surgery of Civil Violence—Ocular Injuries, in *Recent Advances in Surgery*, ed. S. Taylor, pp. 334–337. Edinburgh and London, Churchill Livingstone, 1973.

Martin, V. A. F., Eye Injuries in Civil Strife, *Transactions of the Irish Ophthalmological Society*, in press.

Miller, R., *et al.*, Injuries Caused by Rubber Bullets. Awaiting publication.

McCaughey, W., Coppel, D. L., and Dundee, J. W., Blast Injuries to the Lungs, *Anaesthesia*, 1973, **28,** 2.

Robb, J. D. A., and Matthews, J. G. W., The Injuries and Management of Riot Casualties Admitted to the Belfast Hospital Wards, August–October 1969, *British Journal of Surgery*, 1971, **58,** 413.

Rodgers, H. W., and Robb, J. D. A., The Surgery of Civil Violence—the Basic Problems, in *Recent Advances in Surgery*, ed. S. Taylor, pp. 321–325. Edinburgh and London, Churchill Livingstone, 1973.

Rutherford, W. H., Medical Consequences of the Riots in 1969, *British Journal of Hospital Medicine*, 1970, **4,** 641.

Rutherford, W. H., Experience in the Accident and Emergency Department of the Royal Victoria Hospital with Patients from Civil Disturbances in Belfast, 1969–72, with a Review of Disasters in the United Kingdom, 1951–71, *Injury*, 1973, **4,** 189.

Rutherford, W. H., The Surgery of Civil Violence—The Accident and Emergency Department, in *Recent Advances in Surgery*, ed. S. Taylor, pp. 325–330. Edinburgh and London, Churchill Livingstone, 1973.

Rutherford, W. H., Advances in Traumatic Surgery, *Practitioner*, 1973, **211,** 427.

Rutherford, W. H., The Injuries of Civil Disorder, *Community Health*, 1974, **6,** 14.

Rutherford, W. H., and Ferguson, D. G., The Classification of Trauma, *Journal of Trauma*, 1975, **15,** 63.

Shaw, J., Pulmonary Contusion in Children due to Rubber Bullet Injuries, *British Medical Journal*, 1972, **4,** 764.

Smyth, G. D. L., and Stewart, T. J., The Surgery of Civil Violence—Injuries to the Ear, in *Recent Advances in Surgery*, ed. S. Taylor, pp. 337–339. Edinburgh and London, Churchill Livingstone, 1973.

Smyth, G. D. L., Blast Injuries of the Ear, *Proceedings of the Royal Society of Medicine*, 1974, **67,** 10.

Wilson, R. I., Belfast—The Medical Task, in *A Guide to Disaster Management*, ed. W. Sillar. Glasgow, Action for Disaster, 1974.

Wilson, R. I., The Role of the Hospital in Disasters, *Injury*, 1974, **5,** 228.

ISBN 0 7279 0004 8

Ireland

8 January 1980

The Prime Minister has asked me to thank you very warmly for your letter of 28 December.

She was very glad to be able to visit Northern Ireland on Christmas Eve and to meet you and some of your colleagues at luncheon in Stormont Castle. She was greatly encouraged by the way in which so many people like yourself are continuing to carry out their tasks with steady and courageous dedication despite all the difficulties of today's situation in Northern Ireland.

The Prime Minister has asked me to send you her best wishes for a peaceful New Year.

C. A. WHITMORE

Mervyn Henderson, Esq.

2.

LIEUTENANT COLONEL C. R. L. GUTHRIE MVO

1ST BATTALION WELSH GUARDS,

British Forces Post Office 811

Bessbrook Military Extension 24

The Rt Hon Margaret Thatcher MP
The Prime Minister
10 Downing Street
London SW1

3 January 1980

Dear Prime Minister,

Thank you very much for writing to me on 27th December about your visit to us on Christmas Eve.

I feel that I, myself, should in fact have written to you. We all appreciated seeing you and your husband in South Armagh when you must have had so many matters of concern which could have kept you in London.

Your time with us meant an enormous amount to the Guardsmen and I as the Commanding Officer am very grateful to you as your visit did much to help my Battalion over Christmas and reminded us that we are not forgotten.

Yours sincerely

Charles Guthrie

file RP.

Ireland

10 DOWNING STREET

From the Principal Private Secretary

2 January 1980

I am sorry that the Christmas and New Year break has meant that I am a little late in writing to you to convey the thanks of the Prime Minister to you and your crew for flying her swiftly and safely to and from Northern Ireland on Christmas Eve.

I understand that both you and Flight Lieutenant James have received photographs from the Prime Minister in the past but that Corporal Griffiths has not. Mrs. Thatcher has accordingly asked me to let you have the enclosed photograph for Corporal Griffiths.

C. A. WHITMORE

Flight Lieutenant R.R. Lucking

PS

Prime Minister.

A heartfelt letter. I will send a suitable reply on your behalf (in a plain envelope). MHL 4/1

16, Ranfurly Road,
Dungannon
Co. Tyrone

28th December 1979

PREM 19/R4/1

Dear Mrs. Thatcher,

I was privileged to attend the luncheon at Stormont Castle on Christmas Eve at the invitation of the Secretary of State.

You have no idea how thrilled I was to meet with you and I was most impressed with your obvious grasp of the situation in Ulster.

I'm sure I speak for all present when I say I appreciate the fact

that you were prepared to devote some of your precious time to come and talk to some of your devoted staff, especially on Christmas Eve when, I'm sure, you could have been doing other things.

Again many thanks, please keep up the good work you are doing, and may I wish you and your family a very happy New Year.

Yours sincerely

Mervyn Henderson

(D.O.E - Roads Service)

CC NIO TH4

10 DOWNING STREET

THE PRIME MINISTER

28 December 1979

Dear Colonel Thompson.

Thank you very much for the hospitality which you and the members of your battalion showed me and my husband when we were in Northern Ireland on Christmas Eve.

I was very impressed by A Company when I visited them at Forkhill. I cameaway with the feeling that here was a highly professional unit which knew what its job was and how to go about it in the most effective way. Their morale was clearly very high and to be with them for only a few minutes was to be greatly heartened. Would you please let the Company know how much I enjoyed visiting them and how honoured I was to be presented with a red beret. I know what a symbol of pride the red beret is.

I was also very glad to have the opportunity to meet other members of the battalion and their wives over lunch at Ballykinler. Being part of a resident battalion in Northern Ireland in today's circumstances clearly has its own difficulties, but I thought that everybody seemed to be in very good spirits.

No best wishes for a peaceful new year.

Yours sincerely

Margaret Thatcher

Lt. Col. David Thompson

18

CCNIO

TMP

10 DOWNING STREET

THE PRIME MINISTER

28 December 1979

Dear Humphrey.

I have of course written to the local RUC and Army commanders who met me at the various places I went to in Northern Ireland on Christmas Eve, but I just wanted to thank you and all the others concerned for all the arrangements that were made for my visit. We managed to meet a large number of people in a few hours, and I for one found the occasion both valuable and encouraging. I was particularly glad not only to have an opportunity to discuss the security situation with you, the Chief Constable (designate) and the GOC but also to meet the Prison Governors, other members of the prison service in Northern Ireland and the Chairman and Secretary of the Northern Ireland Prison Officers' Association. I found it most helpful to hear about their problems at first hand.

Yours

Margaret

The Rt. Hon. Humphrey Atkins, M.P.

HS

CC NIO

TMP

10 DOWNING STREET

THE PRIME MINISTER

28 December 1979

Dear Group Captain Olding.

I should like to thank you very warmly for the way in which your RN and RAF helicopter crews ferried me and those with me safely and swiftly from one place to another during my visit to Northern Ireland on Christmas Eve. We had a great deal of ground to cover, and I could not possibly have seen so much without the very efficient transport which you provided.

I should be glad if you would pass on my thanks to all three crews who were involved in the visit and in particular to Flight Lieutenant Sharp and his crew not only for flying me and my husband so well, but also for the toy helicopter they gave me!

My best wishes for a peaceful new year.

Yours sincerely

Margaret Thatcher

Group Captain R.C. Olding, DSC, ADC, RAF

HS

file

cc NIO

10 DOWNING STREET

THE PRIME MINISTER

27 December 1979

Dear Chief Superintendent McCullagh.

I am writing to thank you very warmly for meeting me when I visited the RUC Station at Forkhill.

I was very glad to be able to meet a number of your men while I was there. They are showing the greatest fortitude and devotion to duty in the way they are carrying out their daily tasks in the face of very real personal danger. The contribution which they are making is an invaluable one, and they have my whole-hearted admiration and respect.

Thank you very much for the RUC plate which I was given at Forkhill. My husband has also asked me to pass on to you his warm thanks for the RUC tie which was presented to him. We shall both value greatly these gifts as mementos of our visit.

Many thanks. My best wishes for a peaceful new year

Yours sincerely

Margaret Thatcher

Chief Superintendent P.M. McCullagh,
Divisional Commander, Royal Ulster Constabulary.

A6

CC N10

10 DOWNING STREET

THE PRIME MINISTER

27 December 1979

Dear Colonel Guthrie.

I was very pleased to meet you and the members of the Battalion's Support Company when I visited Newtownhamilton on Christmas Eve.

I was greatly impressed by the quiet professionalism of your soldiers. They are making an invaluable contribution in very difficult circumstances. I was also encouraged by the cheerfulness with which they were going about their tasks: their morale is plainly very high indeed. I came away much heartened by what I had seen and heard.

Would you please pass on to Support Company my thanks for the Welsh Guards' tea towels they gave me. I was very touched that they had found time to think of giving me a present in the midst of all the many demands on their time and energy. My best wishes for a peaceful new year.

Yours sincerely

Margaret Thatcher

Lt. Col. Charles Guthrie,
Commanding Officer,
1st Battalion Welsh Guards.

10

CC NLO

10 DOWNING STREET

THE PRIME MINISTER

27 December 1979

Dear Mr. Rodgers,

I am writing to thank you very warmly for meeting me at the RUC Station at Newtownhamilton on Christmas Eve.

I was very pleased to be able to meet some of your men during my visit. I have nothing but the highest admiration for them and for the steady courage and dedication they have shown over the years. Theirs is an exceptionally difficult task, and they are doing it supremely well.

My best wishes for a peaceful new year.

Yours sincerely

Margaret Thatcher

Assistant Chief Constable Charles Rodgers
Headquarters, Royal Ulster Constabulary

HO

3.

PRIME MINISTER

Visit to Northern Ireland

I enclose a number of thank you letters following your visit to Northern Ireland earlier this week. You may like to add to each of them in your own hand "My best wishes for a peaceful New Year".

The letter to Chief Superintendent McCullagh not only thanks him for the plate which was presented to you at Forkhill, but also passes on Mr. Thatcher's thanks for the RUC tie which he was given there. I know that Mr. Thatcher had it in mind to write himself to say thank you for the tie, and if he cared to supplement what is said in your letter with a note in his own hand, which could be enclosed in the same envelope, I am sure that this would be much appreciated by the RUC.

AWS.

27 December 1979

From Major D.L. Roberts MBE

A Company
2nd Bn The Parachute Regiment
Forkhill
Northern Ireland

26 December 1979

The Prime Minister
10 Downing Street
London

On behalf of my Officers, Non Commisioned Officers and men, I would like to thank you and your husband for visiting us at Forkhill on the 24th December.

As you later remarked to the press our morale was high. I can assure you that after your visit it was even higher.

I trust you and your family had a happy Christmas .

We in A Company wish you a very happy, successful and peaceful New Year.

D.L. Roberts.
Major D.L. Roberts
Officer Commanding

Prime Minister.

No need to reply since your letter to Colonel Thompson, the CO of 2 PARA, will have been passed on to A. Company.

AJ

31/12

Ireland

Sent from the P.M.'s aircraft on leaving RAF Aldergrove, December 24th.

10 DOWNING STREET

To the Secretary of State for Northern Ireland, Belfast.

Would you please pass on to the Chief Constable, the GOC, the prison officers and all ~~other~~ the other members of the community I met during my brief visit to Northern Ireland today my warmest thanks for their hospitality and my best wishes for a happy Christmas and a peaceful New Year.

Margaret Thatcher.

Passed
Nov.
FL.

E.R.

SUMMARY PROGRAMME

E.R.

NEWTOWNHAMILTON (11am to 11.35am)

Army: One company of 1st Batt'n, Welsh Guards (7 Officers, 70 men) (Roulement)

RUC: 1 Inspector, 2 Sergeants, 10 Constables

Met by: Assistant Chief Constable Charles Rodgers

Introduced to: Lt. Col. Charles Guthrie, Welsh Guards (CO 1 Welsh Guards)
Superintendent Cardwell (RUC Divisional Commander)
Inspector Middleton (in charge of RUC Newtownhamilton)
Major Rommilly David, Welsh Guards

Situation: 2 miles from border; largely Protestant. SF patrol, mount VCP; RUC and Army operate jointly from RUC station.

Recent incident: Fairly quiet recently. Soldier killed on 19 March 1979 by remote control mortar: 5 soldiers injured, 2 police injured.

E.R.

FORKHILL (11:40am to 12:15pm)

Army: A Company, 2nd Batt'n, Parachute Reg't.
(5 Officers, 100 men)

RUC: 1 Inspector, 2 Sergeants, 7 Constables.

Met by: Brigadier Waters (i/c 3 Brigade: travelling on VIP helicopter)

Introduced to: Major David Robert, 2 Para.
Inspector David Oliver (i/c RUC, Forkhill)
Inspector McDowell (Bessbrook RUC Support Unit)
Inspector Cherry (RUC Special Patrol Group)

Situation: 1 mile North of border. Cross border attacks against SF. Base is joint RUC/Army - currently under reconstruction to resist mortar attack.

Recent Incidents: 22 September - pub and shop destroyed by PIRA bomb (to discourage inhabitants from "fraternising").
16 December - command detonated device in covert observation post killed Private GRUNDY.

E.R.

BALLYKINLER (12:30pm to 1:15pm)
(Buffet lunch)

Army: 2nd Battalion, Parachute Regiment

Met by: Lt Col David Thompson and his wife (Liz) (CO, 2 Para)

To meet: Members of all ranks, wives and families of 2 Para.

(The lunch is hosted by Mr Michael Alison MP, Minister of State, Northern Ireland Office)

Situation: One of Army's 2 main training areas in Northern Ireland.

Lunch held at Abercorn barracks, which houses 2nd Batt'n, Parachute Regiment, a resident battalion. Ballykinler also houses one company of 3 Battalion of the UDR.

Incidents: 2 Para have lost 17 men on this tour, 16 at Warrenpoint and one near Forkhill on 16 December.

E.R. STORMONT CASTLE (1:35pm to 2:15pm)
(Buffet lunch)

(The Secretary of State's office in Northern Ireland)

Buffet lunch:

Chief Constable (Designate)
Jack Hermon
GOC - Lt Gen Sir Timothy Creasey
Sir Maurice Oldfield
Mr Ewart Bell (Head of NI Civil Service)
Mr Irvine (A Permanent Secretary in the NI Civil Service)
Mr Hannigan (Deputy Under-Secretary, NIO)

1 Prison Governor, 1 Prison Officer from HM Prisons Maze, Belfast, Magilligan, Armagh, HM Borstal Millisle, Young Offenders, Centre Hydebank

4 Firemen

4 Bomb damage repair men

1 Surgeon
1 Neuro surgeon
) Royal Victoria Hospital

1 Belfast GP

4 Nurses

4 Ambulancemen

2 Hospital Ancillary workers

E.R.

STORMONT CASTLE (2:15pm to 2:30pm)

Meeting: Prisons

	Secretary of State
Prison Governors	Mr Hilditch (Maze)
	Mr Kerr (Belfast)
NI Prison Officers Ass'n	Mr Hodgkinson (Chairman)
	Mr McGookin (Secretary
	Mr Stowe
	Mr Irvine Permanent Secretary, concerned with prisons
	Mr Barry Deputy Secretary concerned with prisons

FR.

STORMONT CASTLE (2.30pm - 3.00pm)

Meeting: Security

Secretary of State
GOC - Sir Timothy Creasey
Chief Constable - Mr Jack Hermon
Mr Stowe
Sir Maurice Oldfield
Mr Hannigan

L.R.

INDEX TO BRIEFS FOR PRIME MINISTER'S VISIT TO NORTHERN IRELAND, 24 DECEMBER 1979

1. Programme.

2. Description of places to be visited:

   (a) Flying programme

   (b) Non flying programme.

3. Personality notes on members of the Security Forces to be met on visits.

4. Background brief on Prisons, for meeting with Prison Governors and staff.

5. Background briefing on security and how we are tackling it, for meeting with Chief Constable and GOC

6. Extract from Top Secret paper on Security Strategy in 1980.

7. Security Statistics.

L.R.

PROGRAMME FOR PRIME MINISTER'S VISIT TO NORTHERN IRELAND - MONDAY 29 DECEMBER 1979

PROGRAMME A: BASED ON THE ASSUMPTION THAT HELICOPTERS CAN BE USED

Serial No		
1	8.30	Secretary of State's aircraft departs RAF Northolt (Secretary of State, Mr Stowe, Mr Harrington, 1 Escort)
2	9.00	Prime Minister's aircraft departs RAF Northolt (Prime Minister, Mrs Thatcher, Mr Pattie, Mr Whitmore, Mr Ingham, 1 Escort)
3	9.45	Secretary of State's aircraft arrives RAF Aldergrove
4	10.15	Prime Minister's aircraft arrives RAF Aldergrove
5		Secretary of State, Mr Stowe and Station Commander, RAF Aldergrove, greet the visitor.
6	10.30	2 Wessex helicopters depart RAF Aldergrove.
		The first helicopter carrying the Prime Minister ~~Chancellor~~ and Mrs Thatcher, the Secretary of State Mr Whitmore, Brigadier Waters, 2 Metropolitan Police Escorts and 2 RUC Escorts.
		The second helicopter carrying Mr Stowe, Mr Ingham, Mr Gilliland and Mr Harrington.
	Note:	The two helicopters will travel within minutes of each other. The VIP helicopter is <u>always</u> to <u>take off</u> first but <u>land</u> second.
7	11.00	Arrive security force base, Newtownhamilton.
	Note:	There are to be <u>no</u> formal receiving lines.
8	11.35	Depart Newtownhamilton
9	11.40	Arrive security force base, Forkhill. /Wellingtons are a must and will be provided by the Army/
10	12.15	Depart Forkhill.
11	12.30	Arrive Ballykinler. (Buffet lunch)
12	1.35	Depart Ballykinler.
13	1.35	Arrive Stormont Castle (Buffet lunch)

L.R.

14	2.15	Meeting at Stormont Castle - Prisons.
15	2.30	Meeting at Stormont Castle - Security.
16	3.00	Depart Stormont Castle.
17	3.20	Arrive RAF Aldergrove
18	3.30	Prime Minister's aircraft departs.
19	4.00	Secretary of State's aircraft departs.
20	4.45	Prime Minister's aircraft arrives RAF Northolt
21	5.15	Secretary of State's aircraft arrives RAF Northolt

R.

PROGRAMME B: BASED ON THE ASSUMPTION THAT HELICOPTERS CANNOT BE USED AND CARS ARE USED INSTEAD

Serial No		
1 - 5		As Programme A
6	10.30	Drive from RAF Aldergrove to Grand Central Hotel, Belfast.
7	11.00	Arrive Grand Central Hotel - meet officers and men of 25 Field Regiment, Royal Artillery -n Lt Col Robert Hall.
8	11.30	Drive from Grand Central Hotel to RUC HQ, Knock.
9	11.45	Arrive RUC HQ, Knock, - meet senior RUC officers and men
10	12.15	Depart RUC HQ for Palace Barracks, Holywood.
11	12.30	Arrive Palace Barracks, Holywood, for buffet lunch with the officers, men and families of 2nd Battalion, Royal Regiment of Fasiliers - Lt Col Mark Tarver.
12	1.15	Depart Palace Barracks - Drive to Stormont Castle
13	1.30	Arrive Stormont Castle.
Than as serials 13 - 15 in Programme A.		
16	3.00	Depart Stormont Castle.
17	3.35	Arrive RAF Aldergrove
18	3.45	~~Lord Chancellor's~~ Prime Minister's aircraft departs
19	4.15	Secretary of State's aircraft departs
20	5.00	Prime Minister's aircraft arrives RAF Northolt
21	5.30	Secretary of State's aircraft arrives RAF Northolt.

PLACES TO BE VISITED (FLYING PROGRAMME)

A. RAF ALDERGROVE

RAF Aldergrove shares its runway and traffic control facilities with the civilian airport, although it is separated from the civilian airport by the main runway. Until 1977 it also housed an RAF maintenance unit but this, like that at Sydenham, was closed as part of Government expenditure cuts.

2. The RAF base acts as the reception point for all military air movements into and out of Northern Ireland, including trooping and VIP flights. Also stationed at the base are one squadron of the Royal Air Force Regiment, who serve on a four-month tour and are responsible for manning the vehicle check points which protect the civilian airport and RAF facilities and for routine patrolling in a small tactical area of responsibility around the perimeter to guard against the threat of attack on aircraft.

3. In addition, RAF Aldergrove houses the Northern Ireland support helicopter detachment (which flies the larger helicopters in support operations), the Reconnaissance Intelligence Centre (RIC) which is responsible for tasking all air photography and photographic interpretation in NI, and the Beaver light aircraft flight, which carries out much of the photography.

B. NEWTOWNHAMILTON

Newtownhamilton is a large village of approximately 800 people 2 to 3 miles north of the border with Co Monaghan. It and the surrounding country is still a largely Protestant area and the village was, in the earlier years of PIRA's campaign, a target for a number of bombing attacks which caused extensive damage. In addition, PIRA terrorists have carried out a number of killings of part-time UDR and RUC'R' members from the surrounding area.

2. After the murder by PIRA of 3 Orangemen at Tullymallen near the village in September 1975, the nearby border crossing was closed. The extensive use of barriers in the village to guard against car bombs, and police and army patrolling, appear to have had some success in reducing the level of violence which is much

less than the other areas of South Armagh to the east. Occasional requests are made for the border crossing to be opened, but the residents are still opposed to the idea since Castleblayney in the Irish Republic (a town which houses a number of on-the-run terrorists) is only 8 miles away.

3. A Security Force presence at Newtownhamilton is provided by a small party of policemen (1 Inspt. (Jack Middleton), 2 Sgts and 10 PCs) and one company of First Battalion, The Welsh Guards, also based in the RUC Station. Security Force activity takes the form of patrolling and VCP activity designed to interdict terrorist movement and stifle activity. There is also a requirement to protect the village against bomb attacks and to provide protection for members of the part-time Security Forces living locally.

Incidents

4. Newtownhamilton has been remarkably free of incidents this year. However, one soldier was killed on 19 March when a mortar bomb (of which 4 hit the RUC station) were fired by remote control from a hijacked lorry parked in the village. Five other soldiers and two policemen were injured. A tenth mortar bomb was left on the lorry and detonated during the follow-up, but there were no further casualties.

C. FORKHILL

Forkhill is a small village approximately one mile north of the border with the Irish Republic, and the village and the surrounding countryside have featured prominently in PIRA's attack against the Security Forces in South Armagh. The main thrust of PIRA's acitivity comes from on-the-run and Republic-born terrorists operating across the border with local support in Northern Ireland.

2. During the last few years Forkhill has seen the whole range of PIRA's tactics, including radio-controlled devices, command detonated devices and mortar attacks. The main aim of their attacks has been to kill members of the Security Forces operating from the RUC station in the village, thereby removing the 'British' presence.

3. The Security Force presence in the village is provided by an RUC party of one Inspector (David Oliver), 2 sergeants and 7 constables, together with a company of the Second Battalion, the Parachute Regiment.

Incidents

4. The most recent incident near Forkhill occurred on 16 December, when a command-detonated device exploded under the floor of a derelict house being used by a patrol of 2 PARA engaged on an operation. The patrol had been in the house for 11 days, but it is thought that the device had been emplaced some time previously. One soldier, Pte GRUNDY, was killed and another suffered a broken ankle. However, only a small part of the 150 lb device detonated, otherwise casualties among the 8-man patrol could have been much higher.

5. Other recent incidents took place on 22 September when a public house and shop were destroyed in a PIRA bomb attack (an attempt to dissuade the villagers from 'fraternising' with the Security Forces), a lengthy, but inconclusive exchange of fire between the Army in a sangar on a hill opposite the RUC station and gunmen, and a radio-controlled explosion just outside the village on 28 April which slightly injured a soldier. The area has clearly been much quieter this year than Crossmaglen to the west.

6. As a result of the last mortar attack a decision was taken to rebuild the base at Forkhill and make it proof against such attack. This is currently under way and all resupply is undertaken only after an extensive operation to clear and secure routes for the conveys. Normal ration resupply and personnel movement is by helicopter only.

D. BALLYKINLER

Ballykinler is one of the Army's two principal training areas in Northern Ireland (the other being at Magilligan in Co Londonderry) and training can be carried out for counter-terrorist operations on a number of different types of range, including a Close-quarter Battle Range (Urban) which simulates conditions in a series of streets in a Northern Ireland town. In addition normal infantry-type training by the Regular Army, UDR and TA can be carried out on a dry training on which battle drills be practised and anti-tank weapons fired.

2. Abercorn Barracks, which is part of the complex, houses one of Northern Ireland's resident battalions, in this case Second Battalion, The Parachute Regiment who, since their arrival in the Province, have lost seventeen men as a result of terrorist activity, sixteen at Warrenpoint on 27 August and one near Forkhill on 16 December.

3. Also housed at Ballykinler is the Battalion ~~B6~~ HQ and one company of 3 (Co Down) Battalion of the Ulster Defence Regiment.

PLACES TO BE VISITED (NON-FLYING PROGRAMME)

F. GRAND CENTRAL HOTEL

Grand Central Hotel, in Royal Avenue in Belfast's City Centre, houses the Tactical Headquarters and one battery of 25 Field Regt, Royal Artillery. The Regiment also has units in the Ardoyne area and New Lodge and has overall responsibility for the City Centre and much of North Belfast.

THE SEGMENT

2. One of the major responsibilities of 25 Field Regiment is to secure Belfast City Centre. The centre itself is guarded by barriers with a number of vehicle and pedestrian access points. The gates into the secure centre of Belfast are manned by civilian search personnel with soldiers statically guarding them. It is proposed that in the near future the guarding will be carried out by mobile foot patrols of soldiers, mostly from the UDR, operating outside the perimeter of the area. It is hoped that the civilian searchers will fall in with this proposal but they have been worried about a possible "degradation" in their personal security.

OPERATIONS

3. Grand Central Hotel is the centre of a number of Security Force operations in addition to the normal framework operations. One of the most significant is an extensive covert operation known as WIDGEON. In addition, Grand Central Hotel houses a team of the Royal Army Ordnance Corps (Bombs Disposal) Unit.

E. PALACE BARRACKS, HOLYWOOD

Palace Barracks, which stands on the edge of Holywood, some five miles from Belfast, houses one of the Province's resident battalions, currently Second Battalion, the Royal Regiment of Fusiliers who have only been in the Province for a few weeks.

2. As a resident battalion, 2 RRF's main task is to provide support for Belfast's roulement units. The particular area which 2 RRF support is West Belfast. In particular, the Close Observation Platoon (COP) is heavily engaged on covert tasks in that area. 2 RRF have been involved in no major incidents in their present tour.

3. Palace Barracks itself dates from the last century and it is intended to carry out a major renovation programme of all accommodation.

PERSONALITY NOTES

Chief Constable (designate)	J.C. (Jack) Hermon, OBE. Takes over on 1 January 1980. Aged 51 (an Ulsterman). Thirty years RUC service. Present job : Deputy Chief Constable.
General Officer Commanding	Presently Lt General Sir Timothy Creasey. Aged 54. A Royal Anglian he took over command in November 1977 and is due to leave in January 1980 to be C in C UKLF as a full General. He will be replaced by Major General Sir Richard Lawson.
Commander, 3 Infantry Brigade	Brigadier C.J. (John) Waters OBE. Arrived in NI on 5 December to replace Brigadier David Thorne. A 'Gloucester', his last posting was as Colonel GS in 1 Armoured Division, BAOR.
Assistant Chief Constable (South)	Assistant Chief Constable C.H. (Charles) Rodgers, OBE. Aged 57, with 37 years service in RUC. Formerly served as Divisional Commander, 'J' Division before taking up present post on 1 March 197[illegible]

INSPECTORS

RUC Forkhill	Inspector David OLIVER
Armagh SPG	Inspector Bob CHERRY (commands SPG section of approx. 40 men based at RUC Armagh and responsible for Police Division H (West), 'K' and 'J'
Bessbrook Support Unit (BSU)	Inspector E T J (Earl) McDOWELL BSU is responsible for mobile RUC support to Bessbrook sub-division of RUC 'H' Division, including border patrolling. Inspector McDowell holds the Queen's Police Medal (QPM).

CONFIDENTIAL

PRISONS

Population

There are more than 2,700 in custody in Northern Ireland, including 80 women - 4½ times the number 10 years ago. Our number of prisoners per head of population is 2½ times higher than in England and Wales. About 75% of all prisoners are serving sentences for terrorist offences.

Special Category Status

The administrative classification of "special category" - prisoners claiming political motivation for their criminal activities - was abolished in respect of offences committed after 1 March 1976. At that date there were 1,500 special category prisoners in custody. The number of special category prisoners has now dropped to 472.

Special category prisoners are not required to work or to wear prison clothing. They are allowed additional privileges including extra visits and food parcels. Because of the large numbers involved and the shortage of normal cell accommodation they are housed in nissen huts in compounds, each containing 60-80 prisoners, segregated into para-military groups.

Protest Campaign

A protest by some prisoners against the refusal to grant special category status to prisoners convicted of offences committed after 1 March 1976 has been going on since September 1976. Originally the protest took the form of refusing to work or wear prison clothing. These are the prisoners said to be "on the blanket". The prisoners intensified their protest action in March 1978 by refusing to clean their cells, wash or use the toilets; they spread excreta on the walls of their cells, emptied urine into the wings and damaged the furniture and fittings of the cells with the result that everything

CONFIDENTIAL

apart from mattresses and blankets has been removed. The number of prisoners at present engaged in this degrading and distasteful form of action is 355 (all Republicans) i.e. about 12% of the prison population, and 50% of Republican prisoners in the H Blocks. The Loyalists have never taken part in the dirty protest. These prisoners are housed in modern cellular accommodation at Maze Prison.

Physical Resources

To keep pace with the increase in the prison population and the need to house newly convicted prisoners in cells following the phasing out of special category status an extensive building programme has been under way since 1975. A new cellular prison with 800 cell places and supportive facilities has been built and occupied at Maze Prison at a cost of £12m. A Young Offenders Centre with 300 places, built at a cost of £7m was opened on the southern outskirts of Belfast earlier this year. Two new establishments - a male prison with 450 places and a female prison with 56 places - are being built at Maghaberry near Lisburn to be ready in 1982 at a cost of £22m. Three new cell units (H Blocks) of 100 cells each are under construction at Magilligan (Co. Londonderry).

We have six establishments in use at present - Belfast, Armagh, Maze, Magilligan, YOC Hydebank, and Millisle Borstal.

Manpower Resources

There are some 2,600 staff employed at present in the NI Prison Service. This includes 40 governor grades and 2,360 discipline staff. The total staff complement in NI prisons in 1969 was 300.

Attacks on Prison Staff

Prisons staff have been the subject of attacks by the Provisional IRA and 17 serving officers have been murdered in the past 4 years. Nine have been killed in 1979 and seven of these murders have taken place in the past three months.

Prison Officers Security

All governor grades and discipline staff may on request be issued with an official firearm for personal protection purposes. Some 1,500 are armed. Lightweight concealable armour vests are also provided for all staff who wish to avail themselves of this form of protection. Physical security measures are provided at the homes of staff who are considered to be at special risk. All staff are provided with two-way door communicators for use at their homes. Comprehensive guidance and instructions are given to staff from time to time on personal security.

The May Committee

The report of the Committee of Inquiry into Prisons in the United Kingdom contains certain recommendations on pay and allowances affecting the NI Prison Service, including the emergency allowance of £3.30 per day paid to staff in Northern Ireland. These are at present under discussion with the Prison Officers' Association. (Mr Irvine and Mr Barry of the Prisons Department of the NIO are the experts on these subjects.

SECRET

THE SECURITY SITUATION AND HOW WE ARE TACKLING IT

The Provisional IRA remains the chief threat, with 400/500 activists. The reorganisation, two or three years ago, into a series of small semi-automonous cells has made it difficult to penetrate their security. Their operations are essentially two-fold: attacks on the security forces and prison officers; and bombing attacks on commercial or public property. There has been a shift of emphasis in PIRA activity towards the border areas, particularly South Armagh, though they remain keen to keep up their activity in Belfast, and East Tyrone has seen an increase in terrorist violence. The border remains important to PIRA: the Republic is the chief source of their supplies, a haven for those on the run, and a jumping-off point for cross border operations. PIRA do not want for resources. They are having some financial difficulties, but little problem over weapons and explosives. Their technical capability has also increased. They have publicly settled for a long haul.

2. Attached are some comparative statistics of violence. Despite a popular impression, this year has not been significantly worse than last; shootings, bomb attacks and injuries have all been down, though deaths are up. PIRA have concentrated their activities on the security forces, and on prison officers: between them, these account for about 55% of the deaths this year. There has been the expected series of pre-Christmas bomb attacks, though this activity has been lower than in the Autumn of last year. There have been some impressive security force successes over the year: over 3,500 lbs of explosives have been recovered, as have 301 weapons and 46,000 rounds of ammunition; there have been over 600 charges and some 800 convictions for terrorist-type offences.

3. Under the aegis of the Security Co-ordinator, much has been done, and more is planned, to improve the effectiveness of the security effort. Measures have been taken to improve the security of prison officers, and the profile of the security forces in West Belfast has been raised. A scheme has been agreed for the selective closure of cross-border roads when opportunity arises, and the various measures agreed with the Government of the Republic of Ireland for the improvement of cross-border security are being implemented. Action has been taken to improve the use of intelligence resources; the need for good intelligence is fundamental to the defeat of terrorism.

SECRET

4. For the future the Secretary of State has recently approved a strategy for 1980, aimed at securing visible improvements in the short term while developing more effective measures for the longer term. Effort is to be concentrated first on the "black" areas of South Armagh, East Tyrone and West Belfast. The starting point will be a reassessment of the threat and the capabilities of the security forces. Area studies will determine the future pattern of security force tasks and deployments and how best the efforts of the RUC, the Army and the civil departments can be co-ordinated. A review will be undertaken of the various options for quick reaction to security incidents so that the security forces can capitalise on the mistakes and unpopularity of PIRA. A special study of the law relating to terrorism is under way. We are identifying public relations themes which can be used to enhance the image of the security forces and disrupt terrorists. We shall maintain our efforts to maximise security co-operation with the Republic.

NORTHERN IRELAND STRATEGY 1980 - SECURITY

The following is an extract from a joint paper by Mr Stowe and Sir Maurice Oldfield, requested by the Secretary of State, reviewing Northern Ireland strategy for the coming year:

1. Security Developments

The policy (enforcing the rule of law by the police with Army support) stands: progress is being made, but slowly; there will be setbacks; the Planning Staff* is now virtually complete and ready to operate; the aim is to achieve some visible improvements in the short-term while developing more effective measures for the longer term.

The weakness is that terrorist incidents tend to be spectacular and positive whereas the security forces' operations risk appearing negative (PIRA were deterred, so nothing happened); are too slow (an arrest is made for a crime two years ago); and do not equate with terrorist acts (one terrorist arrested may have a dozen coups behind him). To many people, especially in Northern Ireland, the law and the courts appear too soft on terrorism. Our successes are not exploited positively and sensitively.

* Security Coordinator's Staff.

2. Our policy should:

a. promote the intelligence effort which is the ultimate matchwinner: the review by the DCI has to be implemented;

b. strengthen the law against the terrorist, maintain and develop the police machinery for interrogation, and speed up the law's application: (a review is in hand on the first point);

c. prepare options which can be used in quick reactions to - and therefore exploitation of - terrorists' acts;

d. make the most of the help the Republic can give; in the process demonstrating to them our commitment;

e. concentrate security forces effort on the "black" areas and also re-assess the effort in the grey areas to coordinate better the police, army and civil administration;

f. consider plans on common assumptions about police development and army manpower for the period under review bearing in mind their implications in the longer term, (say three years).

3. The following tasks should be undertaken:

i. Preparation for a Ministerial meeting with the Republic in January on (a) security and cross-border cooperation; and (b) political development and the Irish dimension.

ii. The DCI and Planning Staff to undertake a new short, medium and long-term assessment of the threat and our capabilities.

iii. The Planning Staff to analyse, assess and advise on the security forces and civil operations in (a) South Armagh, (b) East Tyrone, and (c) West Belfast. (Special attention will have to be given in all cases, particularly in respect of (c) to political and economic implications.)

iv. The Planning Staff to proceed thereafter with similar assessments of other areas of Northern Ireland.

v. The Planning Staff to prepare for SPM* urgently a prospectus for the analyses at (iii) and (iv). The outcome of these analyses, with the Security Coordinator's comments, will normally be put to SPM.

* Security Policy Meeting: Chaired by Secretary of State.
Members: Chief Constable, GOC, Security Coordinator, PUS.

vi. The Planning Staff to review contingency "quick reaction" measures against possible terrorist operations (e.g. large-scale bombing, single spectacular, kidnapping) and to take advantage of temporary favourable attitudes (e.g. RVH and Crumlin Road).

vii. A comprehensive public relations policy, consistent with political objectives, to be developed covering all aspects of security, including prisons, (no more "own goals"), for approval by SPM.

viii. Consideration to be given to political and operational merits and demerit of, and possible means of exploiting, disruptive arrest and detention measures.

SECURITY STATISTICS

	1969-70	1978	To 20 Dec	Total
DEATHS				
RUC/RUC'R'	107	10	13	130
ARMY/UDR	356	21	48	425
PRISON OFFICERS	6	2	10	18
CIVILIANS	1,331	48	40	1,418
TOTAL	1,800	81	111	1,992
INJURIES				
SF	6,214	419	294	6,927
CIVILIANS	14,621	548	546	15,715
TOTAL	20,835	967	840	22,642
EXPLOSIONS				
NO.	5,759	455	422	6,636
WEIGHT	187,275	5,443	11,179.75	203,897.75
EXPLOSIVES RECOVERED				
NO.	2,782	178	138	3,098
WEIGHT	112,172	5,860.5	3,527	121,559.5

INCENDIARY ATTACKS	June 1973-1977	1978		
	1,180	75	31	1,286

SHOOTING ATTACKS	1970-77	1978	1979	
	25,613	755	719	17,087

CROSS-BORDER INCIDENTS	1971-77	1978	To 30.11.79	To 1977-1979
	1,678	137	158	1,973

FINDS	1970-77	1978	To 20.12.79	
WEAPONS	7,412	400	301	8,113
AMMUNITION	915,051	43,511	46,280	1,004,842

CHARGES	Aug 1972-1977		To 20.12.79	
	7,087	843	663	8,593

CONVICTIONS	1974-77		To 30.11.79	
	4,267	872	805	5,944

2

F.R.

INDEX TO BRIEFS FOR PRIME MINISTER'S VISIT TO NORTHERN IRELAND, 24 DECEMBER 1979

1. Programme.

2. Description of places to be visited:

   (a) Flying programme

   (b) Non flying programme.

3. Personality notes on members of the Security Forces to be met on visits.

4. Background brief on Prisons, for meeting with Prison Governors and staff.

5. Background briefing on security and how we are tackling it, for meeting with Chief Constable and GOC

6. Extract from Top Secret paper on Security Strategy in 1980.

7. Security Statistics.

E.R.

SECRET

For "Lord Chancellor" read "Prime Minister" throughout.

DRAFT PROGRAMME FOR OPERATION WAFFLE - MONDAY 24 DECEMBER 1979

PROGRAMME A: BASED ON THE ASSUMPTION THAT HELICOPTERS CAN BE USED

Serial No.			
1	H.S.	8.30	Secretary of State's aircraft departs RAF Northolt
2	H.S.	9.00	Lord Chancellor's aircraft departs RAF Northolt
3		9.45	Secretary of State's aircraft arrives RAF Aldergrove
4		10.15	Lord Chancellor's aircraft arrives RAF Aldergrove
5			Secretary of State, PUS, GOC, Chief Constable Designate and Station Commander RAF Aldergrove greet the visitor
6		10.30	2 Wessex helicopters depart RAF Aldergrove. The first helicopter carrying the Secretary of State and the PUS
			NOTE: I will not give separate timings for the two helicopters because they will travel within minutes of each other, but I have made it clear that the Secretary of State's helicopter is always to go first.
7		11.00	Arrive security force base, Newtownhamilton Met by ACC Rodgers, Supt Cardwell and Lt Col Charles Guthrie, CO 1 Welsh Guards The RUC Station in Newtownhamilton is run by Inspector Jack Middleton. One Sergeant and 4 Constables will also be present The Army contingent there is 7 officers and 70 men and commanded by Major Rommilly David, 1 WG. About 40 soldiers will actually be there

E.R.

Serial No.		
8	11.35	Depart Newtownhamilton
9	11.40	Arrive security force base, Forkhill / Wellingtons are a must / Met by Chief Supt McCullagh and Lt Col Colin Thompson, 2 PARA. The Army contingent there is 5 officers and 100 men from 2 PARA commanded by Major Tim Marsh of 2 PARA. About 50 soldiers all told will be there on the day Inspector David Oliver is in charge of the RUC Station and one Sergeant and 4 Constables will also be present. Inspector McDowell in charge of the Bessbrook Support Unit and Inspector Cherry in charge of the Special Patrol Group will also be present.
10	12.15	Depart Forkhill
11	12.30	Arrive Ballykinler. TV Coverage. Attend buffet lunch of all ranks plus families from 2 PARA. In addition to the CO of 2 PARA Lt Col Colin Thompson, Commander of 3 Brigade would be present, Brigadier John Waters
12	1.15	Depart Ballykinler

NOTE: The buffet lunch will, of course, last longer than this and the Minister of State, Mr Alison, has been asked to attend the lunch throughout, both as an additional host and to cover the possibility that the visit by the Lord Chancellor and the Secretary of State might have to be cancelled

E.R.

Serial No.		
13	1.35	Arrive Stormont Castle for buffet lunch. TV Coverage.
		NOTE: The buffet lunch will be arranged for 12.45 for 1.00 with a finishing time of 2.00. Sir Maurice Oldfield and Mr Hannigan will host the lunch until the visitors arrive. The guest list will include Mr Irvine, Mr Barry, Mr Truesdale, Mr Kerr (Governor of the Belfast Prison), Mr Hilditch (Governor of the Maze Prison), Mr Cunningham (Governor of Magilligan Prison), Mr McLaughlin (Governor of Millisle Borstal) and Mr Scott (Governor of Armagh Women's Prison), plus prison officers (including POA union members). Also invited will be doctors, nurses, firemen, ambulance men, hospital ancillary workers and DOE bomb damage repair officers. Not all participants can be or will agree to being photographed.
14	2.15	Lord Chancellor and Secretary of State have meeting with Prison Governors Kerr (Belfast) and Hilditch (Maze), Mr Hodgkinson, the Chairman and Mr McGookin, Secretary of the NI Prison Officers' Association. PUS, Mr Hannigan and Mr Irvine to attend
15	2.30	Lord Chancellor and Secretary of State have security meeting with GOC and Chief Constable Designate (Mr Hermon), PUS, Sir Maurice Oldfield and Mr Hannigan
16	3.00	Depart Stormont Castle
17	3.20	Arrive RAF Aldergrove
18	3.30	Lord Chancellor's aircraft departs
19	4.00	Secretary of State's aircraft departs
20	4.45	Lord Chancellor's aircraft arrives ~~RAF Northolt~~ Gatwick
21	5.15	Secretary of State's aircraft arrives RAF Northolt
22.	5.20.	Prime Minister's aircraft arrives RAF Northolt.

E.R.

Mr. Whitmore

If you need me over the
weekend, my home 'phone no.
is Ripley (048643) 3919.
If I am out, the duty Officer
at Stormont House will be able to
contact me
— Belfast (0232) 63255,
and ask for Duty Officer.

Roy Hennessey
24/12

SECRET.

1

10 DOWNING STREET

Prime Minister.

Visit to Northern Ireland

Transport.

George will be ready to leave Chequers at any time after 0800 on Monday. The aircraft is due to take off from Northolt at 0900. Bernard Ingham and I will join you at Northolt.

George will be waiting for us on our return to Northolt at ~~1615~~ 1715* to take you straight to Chequers.

I have told Miss Thomas where you will be leaving and returning to Chequers but not telling her where you are going.

Dress.

You will need a warm topcoat (though

The N10 will have a combat jacket available for you if you want one. They will also provide you with Wellington boots plus socks.

A combat jacket and Wellingtons will also be available for Mr Thatcher.

AMH

21 x i

* changes to allow for the diversion via Gatwick!

Ireland

10 DOWNING STREET

11 October 1979

Dear Colonel Rose,

Bryan Cartledge, in his letter to you of 30 August, promised to return the slides which you very kindly let him have during the Prime Minister's visit to Portadown. We have had prints taken of the slides and I return them to you herewith. I must apologise for the delay in returning them to you. Thank you again.

Yours sincerely,

Janice Sargent.

Lieutenant Colonel H.M. Rose

tmw

Ireland

5 September 1979

I am writing to thank you for your letter of 1 September to the Prime Minister about- her visit to the Battalion.

The Prime Minister is very grateful to you for writing as you did and for the sentiments that you express. She feels as deeply as you about the loss of life at Warren Point and about the death of Colonel Blair. She was nonetheless pleased by what you report about the reaction of the villagers of Crossmaglen to her visit.

MO'DBA

Major N.J. Ridley

10 DOWNING STREET

3rd September 1979

Dear Hector,

How very kind of you to have written following my visit to Northern Ireland last Wednesday.

I was immensely impressed by the high morale and dedication of the Queen's Own Highlanders, and indeed, of all other soldiers whom I met.

Thank you again so much for having written.

Yours ever,

Margaret

Hector Monro Esq JP DL MP

S.
Ireland

10 DOWNING STREET

THE PRIME MINISTER

3 September 1979

Dear Lord Blease,

I am very grateful for your kind message to me about Northern Ireland.

The bipartisan approach to the British Government's policies in Northern Ireland is an essential basis for progress towards an eventual solution and in the continuing struggle against terrorism. I very much appreciate the strong endorsement which your message gives to this approach and to the Government's efforts.

Yours sincerely,

(signed) M.T.

The Lord Blease of Cromac

TMW

LORD BLEASE OF CROMAC TELEPHONED THE FOLLOWING MESSAGE TO THE PRIME MINISTER:

"I warmly compliment the Prime Minister on her prompt visit to Northern Ireland at this sad and critical time. It has been warmly appreciated by all people of goodwill. Unquestionably the Secretary of State for Northern Ireland is facing more entrenched problems and more sophisticated techniques of criminal terrorism than his predecessors. In his attempts to defeat these evil men, whose methods pose a threat to modern society at large, and in his patience and careful efforts to effect a political reconciliation in Northern Ireland, Mr. Atkins has my full support.

Sgd. Blease of Cromac

(Opposition Spokesman on Northern Ireland Affairs in the Lords)

10 DOWNING STREET

From the Private Secretary

3 September, 1979.

The Prime Minister has seen your letter to her of 30 August, and has asked me to say that she is most grateful to you for writing as you did.

The Prime Minister was indeed impressed with the professionalism being shown by those soldiers whom she met during her visit to Northern Ireland.

M. O'D. B. ALEXANDER

General Sir Edwin Bramall, GCB, OBE, MC, ADC,
Gen.

FROM MAJOR N J RIDLEY NO.

CF Did Pm Carlisle write to Major Ridley after the visit?

1ST BN QUEEN'S OWN HIGHLANDERS

British Forces Post Office 811

1 September 1979

Dear Prime Minister,

I would like to thank you most sincerely for finding the time to come and visit our Battalion in South Armagh. To lose one's Commanding officer is always a blow; to lose one of the stature of Colonel David Blair is doubly hard as one rarely has the privilege to serve under a man of such charm and ability. In our close knit family Regiment the loss was felt deeply by all ranks.

Although I believe his death has in no way affected the efficiency of the Battalion the personal concern you showed for your soldiers by visiting Crossmaglen displayed the sort of leadership this country has so long been needing and it has done much to fortify this Battalion for the remainder of its tour in Northern Ireland.

I hope you were not offended by

the Lamming Certificate. It was just my Sergeant Major's way of saying thank you.

You might be interested to know that many of the villagers of Crossmaglen who normally refuse to talk to us except to express hostility to the British have been coming up to my soldiers expressing great respect and admiration for you and sadness that they could not have met you personally when you visited.

I hope that this change in attitude will lead to an increase in low level intelligence in our battle to defeat terrorism.

I remain your most obedient servant

Nicholas Ridley

Israel visit file

2

6/5

10 DOWNING STREET

Prime Minister

Mrs. Gursman

The news is much better. Mrs. Gursman left the camp for only a short time. She subsequently visited Warrenpoint with her brother, and now fully accepts why there is no body. She has returned to England and, although obviously very distressed, is stable and in as normal a state of mind as could be expected. 31/8

Northern Ireland Office
Stormont Castle
Belfast BT4 3ST

Lord Blease of Cromac
27 Ferguson Drive
BELFAST 4

31 August 1979

I welcomed and deeply appreciated the warm and friendly sentiments contained in your message yesterday to the Prime Minister, which you were so good as to draw to my Private Secretary's attention.

The vile assassination of Lord Mountbatten and his companions, and the horrific murders of so many soldiers near Warrenpoint, has caused me deep personal grief and has strengthened even more the Government's resolve to defeat the terrorists and to promote political reconciliation. In this, we shall be greatly aided by the support of the main parties at Westminster, and I shall be anxious to continue consultations to maintain the bipartisan approach which has so helpfully underpinned the policies of all administrations in the past.

Thank you once again for your generous comments.

HIDDEN COPIES
CC PS/SofS (L)(B)
PS/PUS (L & B)
Mr Stowe (L)
Mr Hannigan
Mr Lane
Mr Gilliland
Mr Corbett (L)
Mr Buxton (L)
Mr Huckle
Mr Cartledge, No 10

EC

5 SEP 1979

HECTOR MONRO

HOUSE OF COMMONS
LONDON SWIA OAA

Williamwood
Lockerbie
Dumfriesshire
Aug 30

Dear Prime Minister,

May I say how wonderful it was you went to Ireland yesterday. There is no doubt your visit had the most tremendous effect on the Army. My two sons were Commanding, & second in command at Crossmaglen when you visited the Queens Own Highlanders & over the phone today they told me their soldiers were absolutely thrilled you had come so soon after the disaster, & particularly

when they had lost their Commanding Officer.

I am sure you would like to know these comments right from the Front Line.

Hector.

Rt Hon M. Thatcher MP

No 10 Downing St.

a MO

10 DOWNING STREET

THE PRIME MINISTER

30 August 1979

Dear Patron,

I greatly valued my opportunity yesterday to meet you, your medical and nursing staff, and some of the patients in Musgrave Park Hospital. I was deeply impressed by all that I saw, and moved by the courage of those who have suffered so tragically at the hands of terrorism.

I know that visits such as mine are a very mixed blessing for a hospital, and particularly for the patients. I am most grateful for all the kindness you and they showed to me.

I send you and your staff my sincere best wishes for your vitally important work and my best wishes to all the patients in your hospital for their full recovery.

Yours sincerely,

Margaret Thatcher

Miss Sheelagh Kennedy

tw

VB

cc MO

10 DOWNING STREET

THE PRIME MINISTER

30 August 1979

Dear Lord Mayor,

I much enjoyed my visit to Belfast City Hall yesterday morning and am most grateful to you, and to all your colleagues on the Belfast City Council, for the kindness with which you received me.

I greatly valued the opportunity which my visit gave me to hear at first hand from you and your colleagues their views and concerns for the situation in the Province and for the future of Northern Ireland. I enjoyed our lively discussion and the warmth of the friendship which was extended to me by all the members of the Council, whatever their politics.

Thank you for a valuable and enjoyable morning.

With every best wish,

Yours sincerely,

Margaret Thatcher

The Rt. Hon. The Lord Mayor of Belfast

VB

cc NIO

10 DOWNING STREET

THE PRIME MINISTER

30 August 1979

Dear General Creasey,

I greatly valued the opportunity which you gave me yesterday to learn at first hand how the Army views the challenge which confronts it in Northern Ireland, and to see for myself the immense difficulties which it has to face in waging the struggle against terrorism. I am grateful to you for arranging such a comprehensive and graphic briefing for me at Portadown, and for your hospitality to me there. Please convey my warm thanks to Brigadier Thorn for his presentation.

I was very deeply impressed by my visit to Crossmaglen, which showed me all too vividly the physical and other handicaps under which the Army has to operate in the border areas. I should be grateful if you would tell Colonel Thomson and Major Ridley how much it meant to me to have such a full account directly from them of the tragedy at Warrenpoint. I share their sorrow and hope my visit did something to reassure the Non-Commissioned Officers and men under their command that the Government are deeply aware of their courage and of the extent of the sacrifices which have been made.

My visit yesterday has given me much to think about and will, I hope, help me and my colleagues to see the way forward more clearly. I send my warm best wishes to you and to all under your command.

I am consulting with colleagues about the matters you put to me.

Yours sincerely,

Margaret Thatcher

Lieutenant-General Sir Timothy Creasey, K.C.B., O.B.E.

VB

cc NIO

10 DOWNING STREET

THE PRIME MINISTER

30 August 1979

Dear Sir Kenneth,

I greatly valued the opportunity which my visit to Gough Barracks yesterday gave me to learn at first hand of the work of the Royal Ulster Constabulary and to discuss with you and your colleagues your views and concerns in the immensely difficult situation with which you have to live.

I found the clear and full briefing which you were kind enough to give me very helpful in deepening my understanding of the problems of the Province and in giving me a clearer overall picture of the security situation and of the joint struggle which you and the Army are waging against terrorism.

Thank you for the kindness with which you received me and for your hospitality. Please convey to all those under your command in the Royal Ulster Constabulary my warm best wishes for their future work and for its success.

Yours sincerely,

Margaret Thatcher

Sir Kenneth Newman

JS

10 DOWNING STREET

From the Private Secretary 30 August 1979

The Prime Minister has asked me to convey to you, Flight Lieutenant Calton and Flight Sergeant Hunter, her warm thanks for the skill and care which you showed during the several helicopter journeys which she made in Northern Ireland yesterday. She greatly appreciated the trouble which was taken to ensure her comfort and her safety: the flights gave her a very clear impression of the difficult circumstances in which your helicopter operations are conducted.

The Prime Minister has asked me to send you, and the members of your crew, the enclosed photographs as mementos of her visit to Northern Ireland, with her best wishes.

BJC

Squadron Leader M.J. Gardiner

2

GENERAL SIR EDWIN BRAMALL GCB OBE MC ADC Gen

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1A 2HB
Telephone 01-218 ..... (Direct Dialling)
01-218 9000 (Switchboard)

CHIEF OF THE GENERAL STAFF

Prime Minister

30 Aug 79

Ben
30/8

Dear Prime Minister

I hope you will forgive me writing to you direct, but I wanted to thank you for going over to Nalon Island so promptly to visit units and commanders involved in the tragic incident at Warren Point and to talk to some of their casualties.

The courage and resolution you showed in going right up to the front and the morale boost at Conmaglen has won the admiration of the British Army and will have done a great deal to lift the morale of the units concerned who naturally, and, in good shape as they are, are operating under

Some chairs at the moment.

I hope you were impressed with the professionalism I know you saw, and that you were able to get a good idea of the security situation as it is, and of its requirements.

Yours sincerely

Iain Ramsay

Ireland

JS

10 DOWNING STREET

From the Private Secretary 30 August 1979

The Prime Minister has asked me to convey to you, and to Lieutenant Pearce and Corporal House, her warm thanks for looking after her so well during her flights to and from Northern Ireland yesterday. She found both journeys extremely comfortable and provided a relaxing beginning and end to a strenuous day.

The Prime Minister has asked me to send you and Lieutenant Pearce, since you have not flown with her before, the enclosed photographs as mementos of her flights in your HS125.

BGC

Lieutenant Griffiths (R.N.)

JS

10 DOWNING STREET

From the Private Secretary

30 August 1979

It was very good of you to arrange for me to be given the Province-wide statistics on the security situation for which I asked during the briefing meeting at Portadown. I am arranging to have prints taken of the slides and shall return them to you.

I should also like, if I may, to take this opportunity of thanking you for all the help which you gave the Prime Minister and her party yesterday. The programme could not have been better chosen and all the arrangements were excellent. The Prime Minister particularly appreciated the fact that although the measures taken for her personal security were thorough and effective, they were also commendably unobtrusive. I shall be grateful if you will convey the Prime Minister's thanks to all those concerned with the arrangements made for the day.

BPC

Lieutenant Colonel H.M. Rose

From: Lieutenant Colonel H M Rose, Coldstream Guards
MA to GOC

Headquarters Northern Ireland
British Forces Post Office 825

Tel: Lisburn 5111 Ext 2400

27th August 1979

Bryan Cartledge Esq
APS to the Prime Minister
10 Downing Street
London

Dear Bryan.

In great haste I enclose the Province-wide statistics which I said I would obtain during the 3 Brigade briefing.

If you wish any further information please do not hesitate to contact me.

Yours ever

Richard,

cc Ireland
PM's visit

PRIME MINISTER

Top Copy: Ireland, Situation P+2.

Northern Ireland

You may like to have, for the discussion for Cabinet tomorrow, a summary of the main points which arose from the briefing which you were given in Northern Ireland today by the Army and the RUC.

The Army

1. Strong belief in the value and necessity of a major independent UK intelligence operation in the south.

2. The Army favour the closure of a certain number (35) of border crossings, together with the necessary change in the law to allow them to be policed.

3. The Army favour improved integration of their own and the RUC's operational control and the establishment of more joint operations rooms.

4. The Army would also like to see a Director of Operations appointed, to exercise overall day to day operational control, responsible only to the Secretary of State.

5. Possibly under the influence of Monday's events, the Army take a gloomy view of the PIRA's increasing operational and technical competence. They point out that in, e.g., the Crossmaglen area, 80 soldiers have been killed since the troubles began as against only 2 terrorists. The Army also have great respect for the PIRA's competence in, e.g., radio and electronics.

RUC

1. The RUC take a more optimistic view of the general course of the campaign against the PIRA.

/ 2.

2. The RUC point out that the Garda will cooperate only with them and never with the Army.

3. The RUC go on to argue that the Garda's level of professional competence is nevertheless very low: they therefore attach importance to persuading the Irish to instruct the Garda to set up special crime and surveillance units. The RUC claim that whereas they have adapted successfully to the new type of enemy they now face, e.g., by switching the emphasis from interrogation to surveillance, the Garda have not changed their tactics, and are still using the old techniques.

4. The RUC are much less enthusiastic about the usefulness of joint operations rooms.

5. Although the RUC agree with the Army that the PIRA's new cellular structure is impossible to penetrate, they point out that PIRA members do talk loosely once an operation has been concluded, and that this can provide useful intelligence.

6. The RUC, unlike the Army (who in the border areas can move only by helicopter or on foot) are able to maintain regular road patrols by using hired unmarked vehicles.

7. The RUC claim that, if their strength were increased by 1,000, they should after 2½ years be able to relieve the Army of all but a reserve role.

To the above I would add one or two further thoughts:-

(a) There are very obvious discrepancies between the statistics of fatalities etc., which were given you by the Army and the RUC respectively: you may wish to have these figures analysed objectively.

/ (b)

(b) The fact remains that in 3 Brigade's area about 200 identified terrorists are holding down 3800 troops and 3700 UDR personnel. In the Province as a whole not more than 500 terrorists are holding down 12666 troops and 7522 UDR personnel - together with 6374 regular and 4560 part-time RUC.

(c) The RUC, who will be responsible for Ulster's law and order when the Army have left, inevitably take a rather different and longer-term view of the problem from that of the Army.

(d) You have seen the physical conditions in Crossmaglen, which are probably typical of the Army operational outposts: they are pretty dreadful. They, together with the constant tension, are perhaps not calculated to produce a very objective view of the overall problem.

(e) The fact remains that there is clearly a very deep difference of approach between the Army and the RUC, and it must be open to question whether significant improved cooperation between them can be achieved without some structural change (joint operations rooms, Director of Operations, or whatever) on the lines suggested by the Army - there has to be some way of adjudicating <u>quickly</u> between conflicting views in any given operational emergency.

BGC

<u>29 August, 1979</u>.

Headquarters
Northern Ireland
British Forces Post Office 825

Lisburn 5111 ext 2400

From Lieutenant General
Sir Timothy Creasey KCB OBE

29th August

My dear Prime Minister

It was a tremendous boost to all my soldiers over here to have you with us today. With your immense responsibilities and very full programme, we are most grateful to you for giving us so much of your time, your interest and your understanding. I found it the most rewarding

to be able to tell you
personally our views
what is going on.

The recent tragic casualties
we have suffered are, as
I told you, a predictable
and inevitable result
of policies we have lived
with in the past. As a
result of your personal
interest, as well as all future
I hope for the future.

We all feel
invigorated by your visit.

With most gratitude
Yours sincerely

Tim Geithner

10 DOWNING STREET

PRIME MINISTER'S ENGAGEMENTS

WEDNESDAY 29 AUGUST 1979

1000 Arrive Aldergrove

1015 Arrive Musgrove Park Hospital by helicopter

Visit civil and military sides

1110 Depart Hospital

1120 Arrive Belfast City Hall to visit Lord Mayor and (hopefully) a cross-section of councillors

1215 Walkabout City Centre

1245 Depart Girdwood Barracks by helicopter

1300 Arrive 3 Brigade, Portadown

Buffet lunch, all ranks

1410 Briefing by GOC, Brigadier Thorne, Major Ridley (QOH) and Colonel Thomson (2 Para)

Followed by helicopter visit to Crossmaglen

1545 Arrive Gough Barracks

1720 Depart Gough

1800 Depart Aldergrove

1930 Sir Alec Merrison and Secretary of State for Health

From: THE PRIVATE SECRETARY

CONFIDENTIAL

NORTHERN IRELAND OFFICE
GREAT GEORGE STREET,
LONDON SW1P 3AJ

28 August 1979

Bryan Cartledge, Esq.,
Private Secretary,
10 Downing Street.

Dear Bryan.

OPERATION LIMITATION

I attach material for the Prime Minister on security, political and economic matters.

Yours ever,

J.G. PILLING.

CONFIDENTIAL

E.R.

CONFIDENTIAL

NOTES ON NORTHERN IRELAND FOR THE PRIME MINISTER

Attached are :

CONFIDENTIAL

E.R.

CONFIDENTIAL

NOTES ON NORTHERN IRELAND FOR THE PRIME MINISTER

1. LINES TO TAKE :

A. SECURITY MEASURES :

1. What is the Government's security policy?

The policy is and remains the elimination of terrorism by the establishment of the rule of law, and the extension of the pattern of normal policing throughout the whole of Northern Ireland.

2. Is this an adequate policy?

You must look at it in a political framework, not merely in isolation. Success must be measured by the degree to which the terrorists have progressively become isolated from the community to which they belong. The sort of activities that they engage in reflects this: attacks on the security forces, assassinations and so forth. So does the secretive, cellular organisation which they have had to adopt.

3. Will the policy continue then?

The broad policy will continue. There is plenty of room for the development of operations within it. The activities of the security forces are being changed and refined all the time to match and thwart the terrorists' activities. The development of methods of surveillance to cope with the terrorists' own more security-conscious methods, is an illustration of this; obviously I cannot go into detail about that, but intelligence remains a key area. Those concerned are working to maintain the impetus and to make most effective use of resources. We can provide additional resources if necessary.

CONFIDENTIAL

E.R.

CONFIDENTIAL

4. No new measures then? Detention?

We shall look at the whole range of options. Selective detention is one of them; the power remains there under the Emergency Provisions Act, though it has not been used for the last 4 years. I must continue to reserve the possibility of using detention if the situation could not be controlled by other means.

5. Ought the security forces not to be freed of present restrictions?

The only restrictions under which the police and army operate are those of the rule of law. But these are not restrictions: these are our ultimate protection. We could only undo this by imposing martial law, and I cannot imagine anything which would give the terrorists greater encouragement. We should utterly lose the sympathy and confidence of a large part of the people of Northern Ireland. Meanwhile it is false to suggest that the hands of the security forces are tied. The circumstances in which they may use their arms are clearly laid down, and follow the principle of law that no more force should be used than is reasonable in the circumstances. The British Government will not put the security forces above the law in any part of the United Kingdom.

6. What more can be done about security cooperation with the Irish authorities?

The horrible incidents of last Monday demonstrate, if any proof were required, that the Provisional IRA pays no

heed to the border and operates widely [redacted] The fact that it picks on British targets to attack does not affect that point, as was tragically shown by the assassination of Lord Mountbatten in Co. Sligo. But we and the Irish authorities have been aware of the terrorists' involvement both sides of the border before. The extent of cooperation between our two police forces is already great. There has been growing confidence between them in the past year. What has happened underlines the need for the closest cooperation between us, particularly in matters affecting our common security, but also in the political and economic fields. The Government look forward to closest consultations at the highest level to achieve the degree of cooperation necessary to eradicate this evil, and to make progress towards solving the problems that concern us both.

E.R

7 What particular measures do you have in mind?

The principle which any measures of cooperation should satisfy is that the terrorists should not be able to draw any benefit from the fact of an international boundary. It would be wrong for me to be specific, but the first requirement is mutual confidence, and on that level the position is very good. There is then a problem of resources, which faces the Irish authorities just as much as ourselves.

8 What about interrogation of suspects in the South by the RUC?

We believe that that would be useful, in cases where the RUC are familiar with all the detailed background of a case, and the Gardai are not. The Irish authorities have turned this down, but we still belive that it would be valuable; it might indeed serve their interest in reverse too.

9 Does the British Army get the cooperation it needs on the border?

The army operates, on the border as elsewhere, in support of the police. It is most at risk today in the border areas, as the tragic incident near Warrenpoint on Monday showed. The police and army are working to improve still further the coordination of their efforts.

10 Should the border not be some sort of "war zone"?

I am prepared to look at any practical option. But at first sight the main objection to that sort of concept is the enormous size of force that would be required to make any use of it. There is not much point in making 300 miles of border prohibited territory if you cannot enforce it. I leave aside the effect on the innocent inhabitants of the territory, though that would be

counter-productive too. This idea illustrates two fundamental points of our policy: first that whatever we do against the terrorists, we must not alienate the community at large, since that will vastly compound our problem and block off any route to political progress; and secondly that we have to treat the terrorists for what they are - not a hostile army, but a small and isolated band of thugs and killers with no popular support behind them. Both these facts point clearly to the primary need for careful and dedicated police work, backed up of course by military power.

11 What are the dangers of Loyalists backlash?

I can sympathise with the impatience of the peaceful Protestant population of Northern Ireland. I would not sympathise with any attempt by lawless members of that community to take the law into their own hands. That would greatly compound the difficulties and dangers confronting the security forces, and politically and in other ways would answer the IRA's prayer.

12 Do recent events affect the Pope's visit to Ireland?

His Holiness is visiting the Republic. The Government have already made it plain that if he wished to visit the United Kingdom he would be warmly welcomed and that the Government would do all in its power to make such a visit a success. The possibility of visiting Northern Ireland should be seen that context, but it is a hypothetical matter. Unhappily, recent events will be bound to increase tensions in Northern Ireland, and that would undoubtedly complicate the problems of the security forces in coping with a visit by someone whose presence would generate so much popular enthusiasm - but also controversy - as His Holiness. But that, as I say, is to theorise.

E.R.

CONFIDENTIAL

B. GENERAL POLITICAL/SECURITY POLICY

13. Why are British troops in Northern Ireland?

The troops are there because Northern Ireland is a part of the United Kingdom where ordinary decent men and women are facing criminal violence which the police cannot deal with on their own. So long as that is the situation they must remain there. It is a fundamental human right that the individual should look to the State to protect him against murderers and criminals. The IRA has shown total contempt for human life and happiness. It has killed and tortured Catholics and Protestants. It is dedicated to the overthrow of all democratically established institutions in both the North and South of Ireland. It is evil and it cannot be allowed to win.

14. Is there a military solution?

There is no military or "security" solution to the problem of providing the people of Northern Ireland with an acceptable form of government. Security measures are required to deal with a security threat. At present it is the IRA who are seeking violent"solutions" not the British Government. And after nearly ten years, these tactics have left them as far away from "victory" as ever. They operate with less public support than ever before. Indeed, by their actions they positively harm the cause of Irish unity.

CONFIDENTIAL

E.R.

15. Can the Army defeat the terrorists?

Terrorism can and will be beaten; and the Army will play a vital role in this. But it is misleading to talk of a fight between the Army and the terrorists. The RUC is in the lead for security operations throughout the Province. The police call on the Army or the UDR for support as required. Both the police and the Army act on behalf of the people of Northern Ireland, who are playing their own part by showing that they reject violence, and that they want it to stop.. With the full support and co-operation of decent people, both here and in Northern Ireland, the police and the Army will certainly defeat the terrorists.

16. Why doesn't Britain simply withdraw the troops/ give notice of withdrawal?

Withdrawing the troops whilst violence continues would make neither moral nor practical sense. An abandonment of British responsibility for Northern Ireland would in present and forseeable circumstances mean the expulsion of the majority of that community from the United Kingdom in conditions of great chaos and uncertainty. There would be a real risk of civil war in Ireland. Britain could not be free either of the responsibility or the effects of that increased violence.

CONFIDENTIAL

17. Why not give notice of eventual withdrawal, and create conditions for an independent Ireland?

There is no reason to believe that a British ultimatum would lead to the creation of agreed and stable forms of government in an independent Northern Ireland. Quite the opposite. Such a move would greatly increase fear and tension.

The constitutional future of Northern Ireland is a matter for the people there to decide. As far as independence is concerned all the major parties and the overwhelming bulk of the population dismiss it. It is not at present even a possible option.

18. Why does the British Government not recognise that ultimately Ireland will have to be united and declare now its interest in achieving unity in due course?

It is dangerous to speculate about the long-term future of Northern Ireland and I will not do so. The Government's position is quite clear. We will not stand in the way of Irish unity - if it appeared that unity had the willing consent of the people of Northern Ireland. But there is absolutely no sign that the majority of people in the North do want this. In the Border Poll of 1973, 58% of the total electorate (not of those voting) were opposed to unity with the South; and in the recent general and European elections 70% of votes were cast on both occasions for candidates in favour of continued Union with Great Britain. The Government will respect those democratically expressed views.

E.R.

POLITICAL PROGRESS

19. Is there any hope of political progress in Northern Ireland?

Realistically, I must tell you that there is no chance of the sort of progress which could be guaranteed to have a beneficial effect on the level of violence. But that does not mean that some modest, but nonetheless worthwhile, progress could not be made on the political front. The Government wants to introduce more local democracy in Northern Ireland by establishing acceptable new political structures there. And if we do not pitch our sights too high, I think that there may be some prospect of progress in this direction. A responsible role for elected representatives in Northern Ireland is something that all the parties there would like to see, so that there is already a base on which, with goodwill on all sides, it should be possible to build.

INTEGRATION

20. Why not have a policy of fully integrating Northern Ireland into the United Kingdom?

There is no indication that full integration is what the people want. In both the majority and the minority community there is a common desire for locally elected representatives to exercise devolved powers - although they differ a good deal in their ideas of how this should be achieved. Integration would be bitterly opposed by responsible minority leaders and would be resented by a good deal of international opinion. For reasons of geography, history, culture amongst other things, Northern Ireland is not like any other part of the United Kingdom and should not therefore be treated as though it were. Integration is not an option which the Government is contemplating.

E.R.

HUMAN RIGHTS

21. Is the Government concerned about international criticism of its human rights record in Northern Ireland?

I am concerned that our record is so often misunderstood; and that criticism is so often misinformed. I am also concerned by the knowledge that there is a concerted propaganda campaign against the security forces by those whose own concern for the human rights of their fellow citizens (including the fundamental right to stay alive) is non-existent.

In legal terms, there is more statutory protection for human rights in Northern Ireland than in any other part of the United Kingdom. Of course it is what happens in practice that counts. But I believe that the present law does provide effective channels for complaint and means of redress for those who believe that their rights have been violated. This is the case, despite the existence of some emergency legislation which temporarily modifies the normal legal processes (eg no juries for trials for alleged terrorist offences). That legislation, which falls unless it is expressly renewed every six months, is necessary in order to protect the human rights of the vast majority of ordinary, peaceful people. But the security forces continue to operate within the law. That is a fundamental point. If it appears that they have not done so then investigation and, if appropriate, prosecution will follow. No-one is above the law in Northern Ireland.

C. THE ECONOMY

22. Current state of Northern Ireland economy

Worse, in terms of unemployment, than anywhere else in the UK. Agriculture provides a steady base; the Services sector is expanding slowly but the manufacturing base is shrinking faster than that in GB partly due to an historical reliance on vulnerable industries such as shipbuilding and textiles.

23. Future prospects

This depends basically upon movements in the world economy and the UK response to that since a small economy like Ulster cannot "go it alone" in economic terms. There can be no inherent improvement in the Ulster economy without a revival in the world economy. An improvement in the security situation would of course help to increase confidence in the economy and hence investment in it. The defeat of terrorism would have an economic benefit.

24. Public expenditure in Northern Ireland : influence in keeping the economy afloat

Public expenditure per head is certainly greater than in the rest of the United Kingdom. This is largely due to the age structure of the population, heavier unemployment and more assistance for industrial development. This expenditure certainly provides support to the Northern Ireland economy, but only on a parity basis. People in comparable situations, e.g. the unemployed or the sick, do not get bigger benefits

than others, and taxation levels are the same in both GB and Northern Ireland.

25. Shouldn't these massive subventions from GB sources be reduced in an attempt to bring the warring political factions to their senses?

I do not regard the concept of he who pays the piper calls the tune being appropriate in the present situation. We must remember that there are a lot of law abiding citizens in Northern Ireland who have no sympathy whatsoever for terrorism practised from any source. Cutting off sickness or unemployment benefit would not help to improve the political or security situation.

26. How does the economic situation in the Republic of Ireland compare with that of Northern Ireland?

The Republic has made a good deal of progress towards industrialising its economy, particularly since it joined the EEC. There is no longer the great disparity in income per head etc. that once existed between the North and the South. But both countries are suffering to much the same extent from inflation and unemployment.

E.R.

CONFIDENTIAL

BACKGROUND NOTE :

1. SECURITY

OD (79) 14 of 5 July described the threat and current Government policy towards it. The threat remains unchanged; a note describing events of the past two months is attached. The "marching season" culminating in the 10th Anniversary of the arrival of British troops in Northern Ireland, gave no significant advantage to the Provisional IRA. Their attempts to whip up popular support were no more successful than in the last 2 or 3 years. This only confirms our conclusion that they have now to operate very largely in isolation and to rely on intimidation for what cooperation they need from the people. Their activities on the border are relatively more important.

Following the consideration of existing Government policy in OD, studies are going forward in various areas, with the intention of reporting back to OD before Parliament reassembles. In the context of the events of 27 August, the problem of cross-border terrorism is crucial. We cannot look for panaceas here, but we are entitled to expect that the assassination of Lord Mountbatten will move the Irish authorities towards a more productive level of cooperation between the two police forces. We have a solid base of cooperation on which to build, and ought not to threaten that by unilateral action on the border unless we are quite sure that it would work better.

CONFIDENTIAL

E.P.

CONFIDENTIAL

On the border as elsewhere, the level and type of security force activity has to be balanced with the need to avoid pushing the local community into the arms of the terrorists. With rare exceptions, this policy has made consistent headway. South Armagh (an area near the scene of Monday's killing of 16 soldiers) is the chief exception; but the community's rejection of the security forces is less important on this relatively short sector of the border than the wild and largely uninhabited terrain and the existence of the border itself.

The local RUC were in touch with the Sligo Gardai as soon as they heard of Lord Mountbatten's assassination. The RUC will offer whatever assistance is asked of them, but are regarding it as essentially a Southern matter. They will of course be in close touch with the Garda over the Warrenpoint incident, which was a strictly cross-border one.

CONFIDENTIAL

E.R.

CONFIDENTIAL

BACKGROUND NOTE :

2. POLITICAL POLICY

1. The Government's policy rests firmly on two principles :

(i) The Government will maintain Northern Ireland as part of the United Kingdom for so long as that is the wish of the majority of its people. Parliament has said (NI Constitution Act 1973) that there can be no change in the constitutional position without consent. That is not just the legal position; it is a practical reality - recognised by all responsible political figures in the Republic as well as in the North. A million people cannot be expelled from the United Kingdom against their will. Nor could any responsible government try to "coerce" or "persuade" them into "agreement".

(ii) The Government is determined to restore some responsible self-government to Northern Ireland in a way that will be acceptable to people in both parts of the community there. (The Queen's Speech spoke in general terms about giving back to the people of Northern Ireland more control over their own affairs). Devolution of responsibilities to an elected NI Assembly is a policy objective shared with all the NI parties. The problem is how to do this in a way which will not be opposed to the point of extreme action by one or other of the principal political groupings. That is the matter which has been uppermost in the Secretary of State's mind during his recent round of talks with political leaders. Their demands are still poles apart; but there could be scope for modest progress (offering democratic benefits short of a fully accountable executive government) which all parties might welcome and from which more significant developments might grow. The Secretary of State's ideas about this will be put to colleagues during the present Recess.

CONFIDENTIAL

E.R.

CONFIDENTIAL

2. The "political policy" of the PIRA opposes both principles of the Government's policy. They want a British commitment to complete withdrawal from Ireland - military, economic and political - as a prelude to the creation of a four-province Federal Ireland. They are opposed to the Government of the Republic whose legitimacy they do not recognise and in whose territory they are also an unlawful organisation. Unlike the Irish Government, which recognises this a first necessity whatever is the longer term aim, they have no interest in seeing the establishment in Northern Ireland of some acceptable form of local democracy with real responsibilities. PIRA violence was maintained at a very high level throughout the life of the ill-fated power-sharing Executive in 1974. There is no feasible political move which HMG could take that would be likely to have any marked beneficial effect on the level of violence. The return of a straightforward Parliament/ Assembly on majority rule lines (including an upper tier of local government with substantial powers) would be totally unacceptable to the political representatives of the minority community. It would heighten Catholic fears and therefore increase support for PIRA. And any overt moves towards Irish unity (including a declaration of interest in it) would spark off an equally hostile reaction in the majority which would almost certainly show itself in violence. For most "Loyalists" there is no distinction between the unacceptability of a "united" or a "Federal" Ireland. The consequences of a policy of withdrawal would almost certainly include civil conflict and casualties on a scale not so far experienced. This point is well recognised by

CONFIDENTIAL

E.R.

responsible Catholics politicians in the SDLP and in the Republic.

E.R.

NORTHERN IRELAND SUMMARY OF SECURITY EVENTS FOR PERIOD 1 JULY-28 AUGUST 1979

GENERAL

The period of this report saw a continuation of attacks against security forces resulting in the deaths of 21 soldiers and 2 policemen. The period also covered the annual 12th July celebration, the 8th anniversary of Internment, the Apprentice Boys march in Londonderry and the 10th anniversary of the introduction of British troops into the Province; traditionally an emotive period which has always resulted in a rise in the level of violence.

SECURITY EVENTS (Comparative figures for the same period 1975-1979 are shown in Annex A attached).

ATTACKS AGAINST SECURITY FORCES

1 July - 1 soldier died as a result of a radio-detonated explosion in Crossmaglen.

31 July - 1 RUC constable shot dead in Armagh.

2 August - 2 soldiers died as a result of a radio-detonated explosion outside Armagh.

2 August - 1 RUC constable shot dead in Belfast.

27 August - 18* soldiers died as a result of radio-detonated explosions in Warrenpoint.

ATTACKS AGAINST CIVILIANS

6 died as a result of shooting incidents.

2 died as a result of bomb explosions.

(In the Republic, Lord Mountbatten and 2 others were killed in a bomb explosion.)

BOMB ATTACKS

A number of commercial and communication targets were destroyed.

MARCHES

12 July celebration - over 100 marches passed off peacefully.

11-12 August - Apprentice Boys march in Londonderry passed off relatively peacefully - some stoning of security forces took place.

8-15 August - 8th anniversary of Internment.

General disorder persisted spasmodically in Belfast and Londonderry throughout the period, involving hijacking vehicles, shooting incidents and stone throwing. Rest of the Province relatively quiet. Major demonstration took place in the Roger Casement Park, Belfast on 11 August (approximately 3500 people took part). 4 masked men and 1 girl brandished weapons during the march. Several people have now been charged with this incicent.

* 16 identified as dead, 2 presumed dead.

E.R.

ANNEX A

COMPARATIVE SECURITY STATISTICS OF TERRORISTS INCIDENTS IN NORTHERN IRELAND

	JULY - AUGUST 1976	JULY - AUGUST 1977	JULY - AUGUST 1978	JULY - AUGUST 1979
TERRORIST INCIDENTS				
Bombs	232	44	64	101
Shootings	437	77	127	134
CASUALTIES				
Army/UDR killed	5	5	4	21
Army/UDR injured	37	29	30	46
RUC/RUC(R) killed	2	1	2	2
RUC/RUC(R) injured	8	4	24	37
Civilians killed	38	10	5	8
Civilians injured	176	66	106	91
Terrorists killed	3	1	-	1
FINDS				
Weapons	101	119	41	59
Explosives (Tons)	1.9	0.6	0.4	N/A
Terrorists charged	205	65	133	118

E.R.

BIRMINGHAM BOMBINGS AND THE RC BISHOP OF BIRMINGHAM: NOVEMBER 1974

Following the death of James McDade, a Provisional who was killed while attempting to plant a bomb at Coventry post office, the Roman Catholic Archbishop Dwyer of Birmingham said that no funeral service would be permitted in a Catholic church in his diocese for anyone who lost his life in the committal of IRA terrorist acts; he apparently issued this statement after hearing that the IRA was planning to turn McDade's funeral into a political demonstration. This statement (of 18 November 1974) preceded the Birmingham pub bombings of 21 November. Following that, Archbishop Dwyer called on the whole community to unite to defeat "the callous bombers", expressed his "disgust, outrage and grief", and said "no one must give aid or cooperation to the violent men". These remarks were followed by a statement by all the Archbishops and Bishops of England and Wales, a copy of which is attached.

STATEMENT BY THE ARCHBISHOPS AND BISHOPS OF ENGLAND AND WALES TO BE READ IN ALL CATHOLIC CHURCHES AND CHAPELS ON THE FIRST SUNDAY OF ADVENT.

(This statement should precede the Cardinal's Pastoral Letter.)

We ask all our people to observe this Sunday as a day of reparation and intercession for peace in our countries and Northern Ireland.

The brutal and indiscriminate killings caused by the bomb explosions in Birmingham have excited feelings of horror and revulsion among all right-minded people. We utterly condemn these murders as well as the cruel mutilations and injuries suffered by so many innocent human beings. We express our deepest sympathy and compassion to all who have suffered or been bereaved. We pray that God will comfort and console them.

Our feelings of revulsion for these acts of terrorism must not allow a wedge to be driven between the English and Irish peoples in these islands. The vast bulk of Irish people condemn this terrorism as much as we do. No Catholic can offer support or excuse for these acts of violence.

We must continue to condemn the actions of all terrorists, no matter from which side. We believe that all Christian leaders would do the same.

No peace will be possible until violence is repudiated on both sides. Above all we must work for the removal of injustice which is the cause of violence. On each of us falls the duty of praying and working for this end.

Condemnation of violence is not enough. We must root out its causes. Therefore we ask all Christian people to consider more seriously than we have ever done before what are the injustices and fears which have led to the present violence. For our part we are ready to co-operate in any way we can.

27th November 1974.

Bryan

1. Note there are 3 Bde statistics only.
2. I can let you have Province wide ones if you wish. SC 28/9

COMPARATIVE STATISTICS
TERRORIST INCIDENTS AND QUANTITIES OF EXPLOSIVES USED
3 INFANTRY BRIGADE - 1977, 1978 & 1979 (2)

INCIDENTS

SER	GANG	1977	1978	1979 1 Jan - 29 Aug	
1.	SOUTH DOWN PIRA (1)	13	19	15	(22)
2.	SOUTH ARMAGH PIRA (H West incl NEWRY)	33	76	69	(115)
3.	NORTH ARMAGH PIRA (J Division)	38	30	23	(39)
4.	NORTH ARMAGH incl KEADY (K Division (South))	20	16	20	(34)
5.	EAST TYRONE PIRA (incl of OMAGH)	74	76	80	(128)
6.	WEST TYRONE	10	8	5	(8)
7.	FERMANAGH	38	22	25	(41)
8.	TOTALS	226	247	237	(387)

NOTE:

(1) These statistics exclude the part of G Division which lies East of COMBER.

(2) Statistics are related to PIRA gangs, not to RUC Divisions, and cover instances of bombings, shootings and other serious incidents.

(3) Figures in brackets are an extrapolation to the end of 1979.

EXPLOSIVES

SER	GANG AREA	EXPLODED			RECOVERED		
		1977	1978	1979 TO 29 AUG)	1977	1978	1979 (TO 24 AUG)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1.	SOUTH DOWN	40	14	1062	50	311	17
2.	SOUTH ARMAGH	275	1604	1550	708	1500	457
3.	J DIVISION	57	18	110	38	45	144
4.	K SOUTH	7	507	823	316	316	358
5.	EAST TYRONE	78	982	1937	445	2369	1049
6.	WEST TYRONE	15	130	802	496	518	30
7.	FERMANAGH	409	1500	1624	2390	1450	503
8.	TOTALS	881	4758	7858	4443	6211	2558(2)

NOTE:

(1) A simple extrapolation of the 1979 total of explosive actually exploded will produce a total in excrss of 10000lbs by the end of the year.

(2) The fact that the quantity recovered is correspondingly lower this year than in the last 2 years may indicate that the quality of the explosive is higher, and that bombing operations are more secure and better executed.

FATAL CASUALTIES
SOUTHERN REGION 1969 - 79

	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1 JAN - 29 AUG	TOTALS
ARMY	0	0	9	38	25	23	15	13	10	15	30	178
RUC	0	2	0	7	8	7	7	11	8	4	10	64
TOTAL	0	2	9	45	33	30	22	24	18	19	40	242
CIV	1	0	7	14	19	13	47	50	13	20	4	198
GRAND TOTAL	1	2	16	59	52	43	69	74	31	39	54	440

1. Total

a.	Reg Army	3800
b.	UDR	3700
		7500

2. Breakdown

a.	Support Tps (ie ATO RE etc)	900
b.	Comd/Control/Int	750
c.	Leave/Courses	250
d.	Admin	380
e.	Avail for ops	1400 approx

3. Operations

a.	Troops on statis tasks (eg guards)	400
b.	Framework operations	460
c.	Covert operations	150
d.	Reaction forces	140
e.	Reserves (2 coys deployed permanently)	250
f.	Balance	Approx zero

4. UDR There are on average 350 available for operations on a daily basis. This is an approximate figure.

Ireland

Bryan

Ken agrees good idea,
Asked whether H Atkins had been consulted by P.M. I said not.
He will call you as soon as he get sated out on N10 tomorrow morning.

RESTRICTED
~~TOP SECRET~~
JANICE AND MIKES EYES ONLY

PM HAS DECIDED TO GO TO ULSTER ON WEDNESDAY.
SHE WANTS A ONE DAY VISIT
VISIT THE ARMY

WALK ABOUT IN THE SHOPPING AREA IN MIDDLE OF BELFAST

QUICK CALL ON MAJOR

SORRY MAYOR

QUERY VISIT VICTORIA HOSPITAL

SHE WILL STAY FOR AS LONG AS NECESSARY

MIKE GO AHEAD WITH ARRANGEMENTS
SHE WILL VERY BE VERY FLEXIBLE

MAP 27/8/79.

ENDS

Chequers → No 10 27/8/79.

OK K
FINE C U