F O R E W O R D

The present Manual on Disaster Victim Identification has been developed by the INTERPOL "Standing Committee on Disaster Victim Identification".

At its meeting in Paris in June of 1982, the Committee set up a Working Group to draft the text of this manual. The members of the Working Group were:

Major W. Bruggeman (Belgium; chairman),
Doctor M. Durigon (France), and
Doctor S. Keiser-Nielsen (Denmark).

Over the following year, the Working Group prepared a draft based on a text submitted by Dr. Keiser-Nielsen. The draft was circulated to all member countries of the Committee for comment and was subsequently adopted - with appropriate amendments - at a Committee meeting in Paris in September of 1983. After translation of the English original into French, Spanish and Arabic versions, the text was carried to the INTERPOL General Assembly for submission to its 53rd meeting in 1984. Here, it was

The manual is herewith submitted to all INTERPOL member countries. It is the hope of the Secretariat, and indeed of all the member countries of the Standing Committee, that it will serve to render future disaster handling procedures more effective, to the benefit of all concerned.

C O N T E N T S

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ABBREVIATIONS USED

Throughout the following text, only a minimum of abbreviations have been used. They are:

AM = antemortem
PM = postmortem
ID = identification

E- = E(ffect) + reference number
M- = M(ortuary) + reference number
-P = P(art body) + reference number.

1.1 GENERAL

In a case of disaster, many police, technical, medical, and other investigations will have to be carried out. In this manual, the procedures concerning Disaster Victim Identification are the main theme.

Disaster Victim Identification is a difficult, multi-disciplinary operation which can only be brought to a successful conclusion if carefully planned. INTERPOL recommends the formation in every country of permanent Disaster Victim Identification Commissions responsible for pre-planning actions to be taken and for training key personnel foreseen to become involved at various levels.

The identification procedures described in this manual presuppose organized intervention. Accordingly, this manual is intended to serve as a guide in particular to those countries in which permanent Disaster Victim Identification Commissions have not yet been formed.

An introductory chapter on identification methods has been included (Chapter 2); it shortly explains the reasons for involving several groups of specialists in the combined operations.

Victim identification is only one aspect among several in the handling of a disaster situation. In order to illustrate the necessary coordination of, and the interaction between, the many measures to be taken, a short chapter on the overall handling of a disaster situation has been included (Chapter 3).

The identification procedures proper have been described in Chapter 4; they include three major phases:

1) the procurement of antemortem physical descriptions of all persons who may possibly be victims (AM-data);
2) the recovery and examination of all dead victims in order to establish a reliable postmortem physical description of each victim (PM-data);
3) the comparison of AM-data with PM-data. - Whenever appropriate experts find two data sets to correspond, the identity of the victim in question has been established.

It is foreseen, that the guidelines given in this manual may have to be modified by member countries according to national/regional law, regulations, religion, and organizational practices.

It is assumed, however, that local/national authorities will not release victims or their remains for burial or transport to other localities until proper identification and investigation of the cause of death have taken place.

It is acknowledged, that - in a case of disaster - the responsibility for rescuing survivors, for handling the dead, and for investigating the cause of the disaster rests initially with local

authorities, and that it may sooner or later become transferred to national authorities. As a consequence, the identification procedures described in the following are those assumed to be used by local/national personnel under local/national authority.

Whenever one or more victims are suspected to originate from another country, it is recommended to establish liaison with that country. Should many victims originate from one particular country, it is recommended to invite experts from that country to participate in the identification procedures. Provisions for such participation already exist in cases of passenger aircraft accidents (Chicago Convention 1944, Annex 13).

The identification of large numbers of disaster victims does not differ but in volume and scope from the identification of a single body recovered unknown; the essential AM- and PM-data to be obtained for comparison and identification remain the same. INTERPOL has worked out a Victim Identification Form which is equally applicable in a single body case and in a disaster situation. The use of this form world-wide will ensure the establishment of complete and standardized data sets for comparison and will greatly facilitate all future international exchange of identification data. In a case of mass disaster, it is assumed that this form will be used by member countries; accordingly, it is also the basis of the following description of AM-data and PM-data collection (Chapter 4) and has been included as an appendix to this manual.

For the comparison of AM-data with PM-data, the use of a standardized elimination diagram will be proposed (Chapter 4.4.1.2). It is left to the individual member country to decide, whether or not it will use this diagram and adopt the procedures involved.

In a case of mass disaster occurring in one of the INTERPOL member countries, the INTERPOL radio network is available for establishing immediate contact with other member countries for transmission of identification data.

2. IDENTIFICATION METHODS

2.1 SUMMARY

Identification is a question of documentation and may be achieved whenever antemortem data can be obtained for comparison with postmortem findings in the form of:

Circumstantial Evidence	Personal Effects	clothing jewellery pocket contents
Physical Evidence	External Examination	general features specific features fingerprints
	Internal Examination	medical evidence dental evidence laboratory findings

2.2 RECOGNITION

For the identification of an unknown body, authorities in charge will prefer to use the simplest means available. In many countries, recognition by next-of-kin is standard procedure, only those bodies in which facial contour has been injured or destroyed being referred for specific examination. Unfortunately, there are many cases on record in which such recognition has later been proved to be wrong, and it remains uncertain how many cases have never been disclosed. It has to be stated, that recognition is never proof of identity.

2.3 PERSONAL EFFECTS

Evidence in the form of clothing, jewellery, and pocket contents is widely relied upon. Such loose objects may offer good chances of reaching a correct identification, provided a detailed and reliable antemortem description of the same objects can be obtained for comparison; accordingly, they should always be secured and described. It is to be kept in mind, however, that a number of cases have demonstrated how easily loose objects may become mislaid or switched (by coincidence or intentionally), thereby leading to wrong identification if relied upon alone. It has to be stated, that property in every form may constitute valuable circumstantial evidence of identity, but never proof. The INTERPOL Victim Identification Form, Part E, is a section for comparable antemortem (yellow) and postmortem (red) description of personal effects.

2.4 PHYSICAL EVIDENCE

2.4.1 External Examination

It is generally agreed today, that proper identification of an unknown body should primarily be based on physical evidence derived from the body itself. The external examination and description of physical features should be left in the hands of a medical expert (police surgeon, forensic pathologist, medical examiner/coroner). Since proper identification involves also the establishment of the cause of death, the medical expert must participate in the removal and description of clothing etcetera from the body; it may facilitate his interpretation of bruises, wounds and fractures if such are subsequently found, hence assist in establishing the correct cause of death. For practical reasons, the undressing of a body and its external examination should be successive parts of the same session.

General features are the first to be described in the naked body. They may concern sex, ethnic group, age group, height and stature, colour of eyes and hair, etcetera. Several of these features are of necessity a matter of judgment, thus potentially inaccurate; in principle, they constitute a classification of the individual, but they may - in combination - lead to identification.

Specific features should be looked for next. Scars, moles, tattoo marks, and abnormalities of various kinds are highly important features if antemortem description of similar features can be obtained; thus, they may well lead to identification. If the manner and cause of death can also be determined (no suspicion of crime), the external examination may suffice for closing the case. The INTERPOL Victim Identification Form, Part D, is a section for comparable antemortem (yellow) and postmortem (red) description of external general and specific features.

Fingerprints are specific external features; if present - and if antemortem prints can be obtained for comparison - they constitute the safest identification means available. Accordingly, they should always be recorded, and by an expert. The INTERPOL Victim Identification Form provides for the inclusion of fingerprint evidence in the combined documentation.

2.4.2 Internal Examination

Whenever identity and/or cause of death cannot be determined from an external examination, the latter has to be supplemented with internal examination in the form of an autopsy (body opening). Since victim identification cannot be regarded as an end in itself, but must be considered an integral and essential part of the overall investigation of the disaster cause and consequences (aimed at preventing, or minimizing the effects of, future disasters), it should be standard procedure to perform autopsies on all disaster victims. It must be left to the medical experts to decide, how detailed the autopsy need be in each individual case.

Medical evidence of importance to identification may be old fractures, organs missing (appendix, uterus, kidney), implants, and other signs of previous surgery. At the examiner's discretion, specimens and samples may have to be taken for further specialist investigation. The INTERPOL Victim Identification Form, Part H (red), provides space for a summary listing of medical autopsy findings.

Dental evidence has achieved particular importance in identification. The examination of teeth and jaws should be left in the hands of a dental expert; he will perform his oral autopsy as part of the general autopsy. Because of the number of exact physical data which may be derived from his examination, it is accepted procedure for the dental expert to remove the jaws or part thereof for further examination. The INTERPOL Victim Identification Form, Parts I and J, are separate forms for the comparable antemortem (yellow) and postmortem (red) description of dental findings.

Laboratory examination of particular items, specimens and samples must be carried out as directed by the experts involved. Police experts may wish jewellery, watches or documents further examined (Forensic Science Laboratories), - medical experts may wish blood type established, or blood, urine and cerebro-spinal fluid analyzed for alcohol or carbon-monoxide content, or tissue samples microscopically examined for pathology (Serology/Toxicology/Pathology Laboratories), - and dental experts may have taken teeth for sectionning and age evaluation, or jaws for maceration and radiography (Forensic Dental Laboratories). The INTERPOL Victim Identification Form provides for the inclusion of laboratory findings in the combined documentation.

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Chart 1: Chain of command.

3. DISASTER HANDLING PROCEDURES

In the following, the procedures recommended for use in a major disaster will be discussed; they should be curtailed and modified according to the work load in hand and the facilities at disposal in the individual case. Exemption is taken from procedures to be used in times of war and in disasters of such proportions that for instance a state of emergency has to be declared, even if - in principle - the measures to be taken are the same.

The procedures recommended in the following will have to be described in reasonable sequence. As will be understood, however, many of them are to be initiated and carried out simultaneously and by different officials and personnel. Also, the circumstances of a given case may justify changes in the sequence here chosen.

Many synonymous designations have been used over the years for the officials in charge of disaster operations and for personnel involved at various levels; the designations used in this manual have been chosen for their adequate description of the functions implied.

3.1 CHAIN OF COMMAND

In order to handle disaster operations effectively, a firm chain of command is necessary (cfr. Chart 1). Should no provisions exist - by law or by appointment - for a high-ranking official (Commissioner of Police, Supervising Coroner) to take charge immediately, an Investigator-in-Charge must be nominated by appropriate authorities as soon as possible. Until further officials become available to take over the direction of the various operation sectors, the latter will have to be set up by - and to start functionning under the direct supervision of - the Investigator-in-Charge.

The Investigator-in-Charge will normally be given the overall responsibility of:

1) coordinating maximum efforts to save life and property;
2) coordinating all aspects of identifying the dead;
3) investigating the cause or causes of the disaster.

The measures to be taken to fulfil these obligations are many and varied, for which reason the Investigator-in-Charge will need several high-ranking police officers to assist him. Apart from supervising the combined operations from beginning to end, he may choose to handle the investigation of the disaster cause or causes himself. However, since the data on which to base his conclusions will not be available until all rescue and recovery operations have been terminated, it must be ensured that all data collected at various levels are sooner or later brought together in his office for final evaluation. His report will not only state his conclusions concerning the cause or causes of the disaster, but will also include whatever proposals the data suggest for avoiding similar disasters in the future, or for minimizing their effects, as well as any proposals for improvement in the future organization and handling of disaster operations.

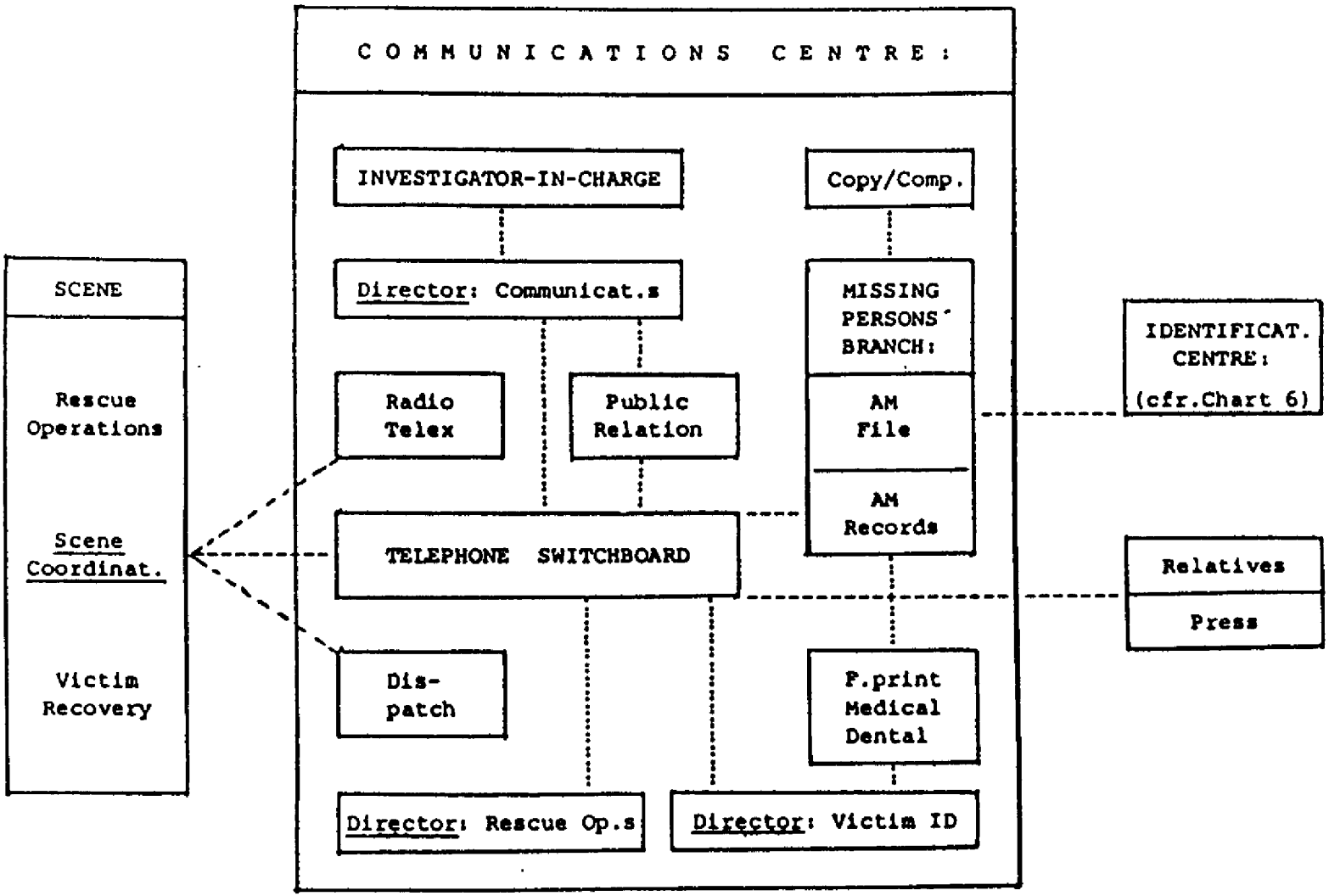

Chart 2: Communication Centre.

For the proper control and coordination of the various actions to be taken, the Investigator-in-Charge will need at least three deputies - responsible for each their major operation sector. They are:

1) a Director of Communications;
2) a Director of Rescue Operations; and
3) a Director of Victim Identification.

The responsibilities of the two former will be shortly discussed in the following, while the responsibilities of the Director of Victim Identification are the main theme of this manual and will be discussed separately in Chapter 4.

Each director should be given full authority to require assistance and facilities from appropriate sources and to deploy staff. He should be free to nominate Coordinators in charge of the various activities and branches set up under his term of reference. Coordinators in turn may elect Chiefs of sections and Leaders of units set up as appropriate to handle specific aspects of the combined procedures.

3.2 COMMUNICATIONS

The importance of establishing as early as possible a Communications Centre (or Branch) cannot be overemphasized. For practical reasons, it will be established most often at a major Police Headquarters. Adequate office facilities and staff must be assigned, and there should be an independent switchboard, if possible also radio and telex communication available (cfr. Chart 2).

Being a service centre for all activities to be initiated, the Communications Centre should include offices for all three directors as well as for those of their subsections which are best placed here. It should further be prepared to render service to all units working outside the centre; for instance, document copying, computer assistance, and some form of translation service (embassy personnel ?) may well become required.Should communication with or between any of the operational units prove difficult to establish or maintain, personal dispatch may have to be arranged for.

In many cases it will be found expedient to set up the Missing Persons Branch (under the Director of Victim Identification) at the Communications Centre; all applications from relatives or others concerning supposed victims should of course be referred to this branch. However, throughout the operations, a constant flow of requests from the public and the news media will also have to be expected; they should invariably be canalized through a Public Relations office. Any release of information to the press should be the responsibility of the Director of Communications personally; only he can fully assess what may have been achieved at any given time and what can be officially stated without harming ongoing activities. For instance, no victim names should be released before families (embassies ?) have been contacted, in order that it should not become learned through the press that a family member may be among the victims.

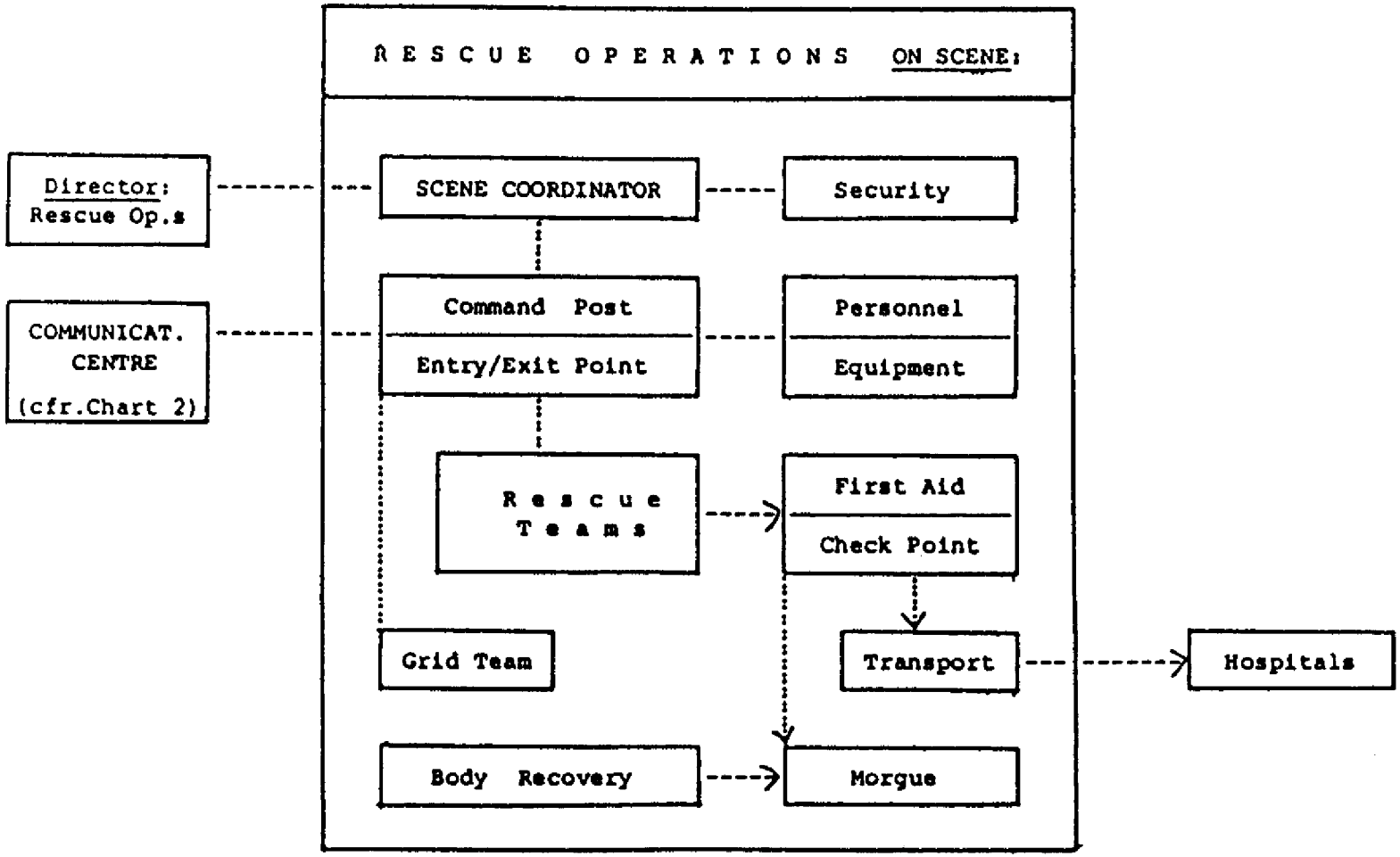

Chart 3: Rescue operations on scene.

3.3 RESCUE OPERATIONS

Rescue operations will be started at once. The initial alarm seldom gives adequate details about the extent of the disaster and the number of victims; accordingly, the Director of Rescue Operations may have to seek further information from any source available. If the disaster site can be reached by car, the nearest radio-equipped police patrol car should be directed to the scene immediately; it will serve the dual purpose of relaying reliable information about ongoing activities and, equally important, represent uniformed authority on the scene. In areas that cannot be reached by car - deserts, mountain ranges, woodlands, snowcovered ground, or at sea - early and reliable information may be difficult to obtain, so helicopters and/or planes (police, military, private) may have to be sent out to reconnoitre and report. In airplane disasters, open telephone lines should be established with the nearest airport and with the airline company involved, if any.

The Director of Rescue Operations is primarily concerned with the rescuing of all survivors irrespective of their identity, and with ensuring them immediate medical care. He will alarm all hospitals in the area and have them bring their emergency plans into action, list how many casualties each of them can take in immediately, and - where appropriate - have them send available ambulances and personnel to the scene. Temporary emergency hospitals may have to be set up wherever facilities and personnel can be found; likewise, further equipment, personnel and transport may have to be required from available sources. Careful pre-planning of these activities is an obvious necessity.

3.3.1 Scene Coordinator

Many people may already be engaged in rescue attempts at the disaster scene; these attempts must be coordinated and intensified according to the magnitude of the disaster. For establishing control and proper coordination on scene, a Scene Coordinator should be nominated (cfr. Chart 3). He will go to the disaster site immediately, there to erect his command post at premises ensuring free communication back to the Communications Centre. He may find it preferable to establish his command post on scene (tent and field telephone, or radio-equipped police van); if so, it should be situated at the most convenient entry/exit point on the scene perimeter, which must therefore be selected. Next, total security will have to be established; for this, the scene may have to be fenced in (stakes and rope or tape), or at least clearly demarcated, and uniformed personnel placed on guard around the clock (cfr. Fig. 1).

From the moment an entry/exit point has been established, the command post also becomes a personnel check-point - the date and time, name and unit of every person entering or leaving the area being listed. Rescue personnel under command can now move in and take over. Civilian volunteers and other unauthorized persons still present within the area should be taken to the command post, have their names and addresses recorded, and be dismissed.

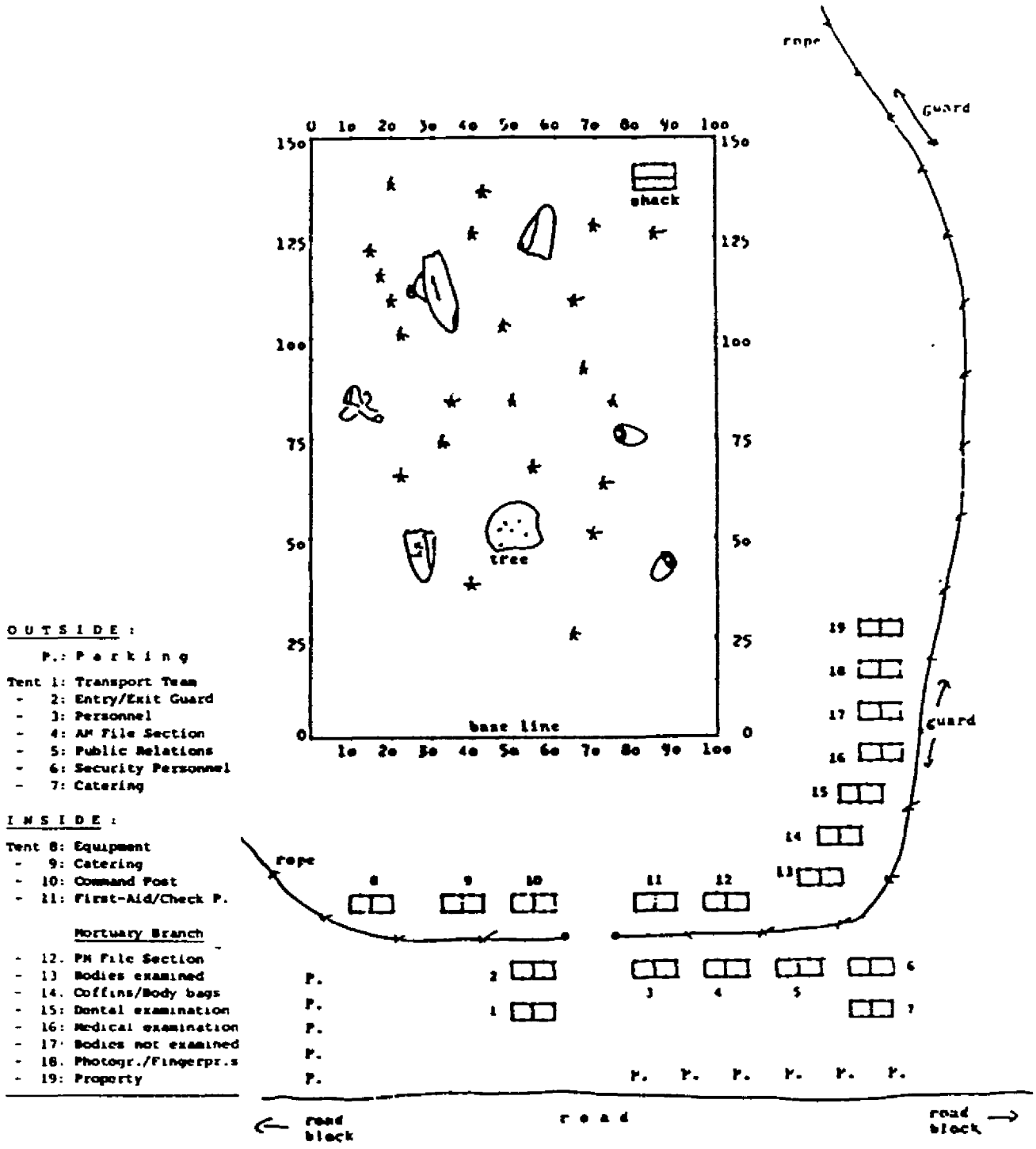

Fig. 1. Sketch of scene of airplane disaster. Mortuary Branch established on site.

Organized rescue operations will start with Rescue Teams being formed, each consisting of two stretcher bearers and one leader; if possible, the latter should be a doctor, or at least someone trained in casualty handling (Red Cross or ambulance personnel). If not in uniform, helmets/hats or armlets should be worn for easy recognition. The teams are briefed about which parts of the area to search respectively, how to get there, how to handle survivors, and about leaving everything else including the dead untouched.

At this time, the Scene Coordinator should be able to get instructions from the Director of Rescue Operations about hospitals in the area ready to take in survivors, and how many - or where else to send them - and about ambulances and other transport facilities available. A separate traffic control unit may have to be set up onscene to ensure a smooth flow in the loading and sending away of victims (parking space, helicopter pad). Traffic control may also have to be established between scene and hospitals.

An advanced first-aid station through which all survivors must pass should be set up at the entry/exit point (doctors, nurses, equipment); its obligation is to save life and to prepare survivors for transporation. Under difficult circumstances, this station may have to be expanded into a regular field hospital; if so, it will probably also be taken over later by the Mortuary Branch for body examination. Some of the victims brought to the first-aid station may be found already dead; they should be transferred to a station morgue (refrigerated truck ?), not sent away. In connection with the first-aid station, a victim check-point must be established in which details of every survivor will be recorded (cfr. later).

Once the last survivor has been sent away, the obligations of the Scene Coordinator change. Fire fighting and debris clearance may still be going on, but technical investigators (e.g. aircraft accident investigators) and victim identification personnel can now start their respective operations under their own command. The Scene Coordinator remains in charge of all practical measures that can be taken to assist these groups in their work.

3.3.2 The Grid

Both the technical and the victim identification group will need adequate mapping of the disaster area in order to be able to safely record their findings. For buildings, consecutively numbered floor plans may suffice; in the open, a grid chart will have to be made by a charting team. A base-line is selected from or between fixed and recognizable points on ground, and perpendicular lines at 10-meter intervals marked out with streamers; the grid should cover the whole of the disaster site proper. A corresponding chart is sketched, clearly indicating the grid and major fixed points on site; it will have to be reproduced in an adequate number of copies, the latter to be handed partly to the Technical Coordinator, partly to the Recovery Coordinator sent out by the Director of Victim Identification (cfr. later). Technical recovery operations will proceed much along the lines followed by body recovery personnel.

NOTES