

#### 4. VICTIM IDENTIFICATION

Victim identification is essentially a question of documentation and cross reference. The basis of this documentation is the INTERPOL Victim Identification Form which should be in stock in adequate number at every major police headquarters.

The Victim Identification Form clearly visualizes the two separate areas in which data collection has to be subdivided, in that yellow forms are intended for listing antemortem (AM) data on known missing persons reported missing, while red forms are intended for listing postmortem (PM) findings in unknown dead persons.

In a disaster situation, the yellow forms will obviously have to be separated from the red forms; they are to be filled in by different personnel at different times and locations. When respectively completed, yellow and red forms will be brought together for comparison in the Identification Centre (cfr. Chart 6). Here, whenever the data listed in one set of yellow forms are found to match the data listed in one red set, the unknown body described in the latter can be identified as the missing person described in the former. A prerequisite is, that the features found to correspond in the two sets are numerous and/or characteristic enough to eliminate all doubt; this is a question for the experts to resolve.

#### 4.1            MISSING PERSONS BRANCH

The Director of Victim Identification will operate from his office in the Communications Centre (cfr. Chart 2) where he will organize a Missing Persons Branch subdivided in an AM Records Section and an AM File Section. A major obligation will be to establish, as soon as possible, a reliable Victim List.

##### 4.1.1        AM Records Section

Personnel in the AM Records Section will use the yellow sheets of the Victim Identification Form for listing AM-data on all persons reported as possible victims of the disaster. These sheets are marked in the upper right hand corner as follows:

- Part A - a form for listing general data (name, address, etc.);
- Part D - a form for listing general and specific physical data;
- Part E - a form for listing clothing and property supposedly worn at time of incident;
- Part F - a form for listing additional information; and
- Part I - a form for listing antemortem dental information.

Personnel in the AM Records Section is assumed to be police officers well versed in taking reports. They should nevertheless familiarize themselves thoroughly with the INTERPOL Form in order to have as complete data as possible recorded already at the first interview; it may prove difficult to reach family members or others at any later time, should omissions suddenly have become important. Police officers are used to taking descriptions of personal effects, general appearance and specific external features. As for specific medical and dental data, the officer is required to obtain the names and addresses of family doctors and dentists (past and present) together with best possible information about previous hospital treatment. To be noted is, that no reference number should be inserted in the top square; antemortem data sets will be filed alphabetically - the appropriate body reference number being added only if and when identification ensues. On the other hand, it may prove an advantage to indicate clearly that a given missing person is a foreigner by adding, under "Part A", for instance the capital letters used with automobile license numbers for country identification.

Most reports on persons assumed to be victims will be received by telephone, but relatives and others may also turn up in person, so office space may have to be made available for direct interviews. When all that can be elicited at the time has been recorded, the completed forms are consecutively transferred to the AM File Section; the latter will handle all attempts to further complete the initial AM-data sets (cfr. later). Once the pressure on the AM Records Section starts to decrease, personnel can be transferred for continued service in the AM File Section where the work load will correspondingly increase for quite some time.

#### 4.1.2 AM File Section

The AM File Section will file AM reports alphabetically under name. Computerization of this file may prove a considerable advantage, in particular if officers in the AM Records Section can be given individual monitors/keyboards allowing them to check immediately, whether or not an ongoing interview may concern a person already reported missing by somebody else. It has been a recurrent experience that - in the first hours following a major disaster - it is extremely difficult to obtain a clear count of the number of victims actually involved. Accordingly, "doubles" should be constantly looked for.

The AM File Section is responsible for checking that all AM reports are complete, and for providing missing data. For instance, AM fingerprints may have to be looked for; if not found on record already, attempts may have to be made to obtain them from the victim's home. All measures to be taken in this respect should be left to fingerprint identification experts and an AM Fingerprint Unit set up, the latter to cooperate closely with the corresponding PM Fingerprint Unit under the direction of the ID Fingerprint Section (cfr. later).

AM reports should contain information about family doctors and dentists, and about previous hospitalization. The various treatment records will now have to be borrowed, but they will - in most countries - only be handed to the police under cover and in confidence (professional secrecy). Accordingly, an AM Medical Unit and an AM Dental Unit must be set up consisting of qualified doctors and dentists entitled not only to opening and reading the records in question, but also capable of extracting whatever data of importance to identification they may contain. These expert groups will cooperate closely with their corresponding PM Medical Unit and PM Dental Unit and be under the direction of the ID Medical Section and the ID Dental Section respectively (cfr. later). Both expert groups should be responsible themselves for filling in their respective parts of the identification form.

The Director of Victim Identification will keep constantly in touch with the Directors of Communications and of Rescue Operations, thus be able to decide when to start transferring completed AM records to the ID File Section under the Identification Centre (cfr. Chart 6).

#### 4.1.3      Victim List

One immediate concern of the AM File Section will be to establish a reliable victim list. Except for the case of a commercial airline crash (in which a passenger list may quickly become available from the carrier involved), it will inevitably take time before this list can be established. It is equally obvious, however, that this list is most important to search and recovery operations at the disaster scene; not until all survivors have been rescued, and the remaining number of names on the list found to tally with the number of bodies recovered on scene, can recovery operations be discontinued.

Difficulties are to be anticipated in locating survivors. Firstly, some of the persons reported missing may not be victims after all. Secondly, even if they are victims they may have escaped more or less unharmed and - at the time the report is received - be on their way somewhere outside the disaster area. Thirdly, they may have been injured but were among the first to become evacuated from the scene in the early unorganized stages of rescue operations. It may prove extremely difficult to trace such survivors, but enquiries must be made to hospitals, clinics, physicians, and other "possibilities" in the vicinity of the disaster area.

One precaution that should always be taken is to have officers in the AM Records Section instruct everybody reporting on a possible victim to report again and immediately, should he/she receive any news of the assumed victim.

#### 4.1.4      Victim Check-Point

A turning point in the establishment of the victim list comes when control has been gained at the disaster site. The first representative of the Director of Victim Identification on the scene should be an officer responsible for setting up a Victim Check-Point (whether or not a First-Aid Station has already been established; cfr. Fig. 1). Here - and before being brought away - date, time, and a short physical description (sex, ethnic group, approximate age) of every survivor must be taken down; victims still conscious will supply their names and addresses. Also to be noted is, where the victim is to be taken and by whom (driver's name, vehicle license number). This listing is best made on a separate Transport Form in triplicate; the driver taking the victim away will sign this form, bring the original + top copy with him and have them signed by the receiving officer, then keep the top copy for himself.

All dead victims brought to the Victim Check-Point (or the First-Aid Station) must be retained until further orders, i.e. until a Search Team has viewed the body and given it its reference number (cfr. later). Morgue facilities should have been established by the First-Aid Station; if not, they must be arranged by the Victim Check-Point officer or the Scene Coordinator.

Not until the total number of dead victims within the disaster area is known will it become possible for the AM File Section to assess, whether its victim list contains the same number of names as there are survivors and dead accounted for. Dead victims may have been brought out from the scene in the early stages, or may have died during transport; in consequence, the possibility of one or more "forgotten" bodies kept somewhere outside the disaster area may have to be looked into. All dead victims thus located should be transferred directly to the Mortuary Branch, there to be given a special Body Reference Number (cfr. later).

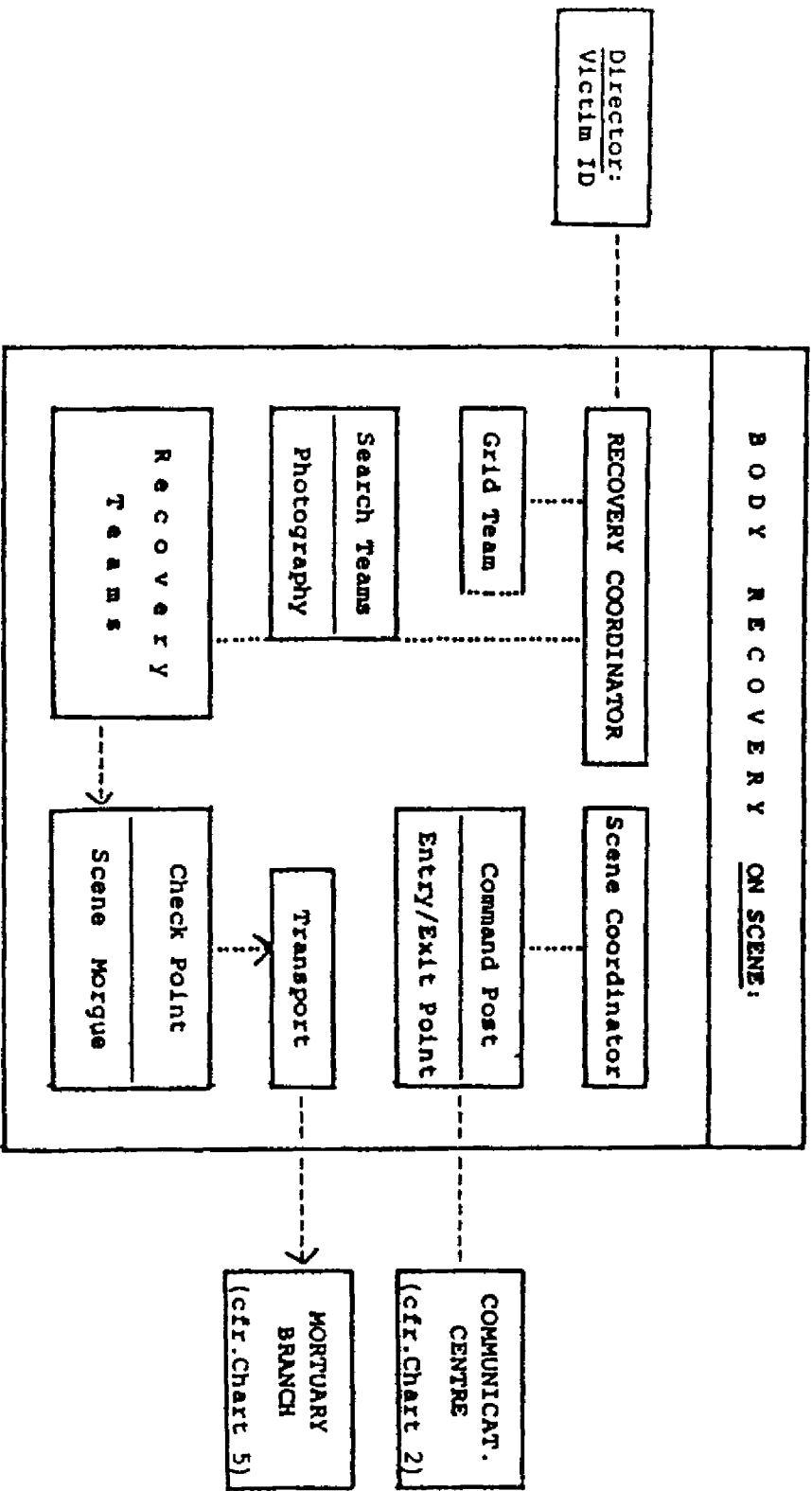


Chart 4: Body recovery on scene.

## 4.2            VICTIM RECOVERY

The recovery of dead victims still remaining on scene does not start until all survivors have been brought out. Rescue Teams will have been instructed to leave dead bodies and body parts untouched, but it has to be anticipated that many bodies and much evidence may nevertheless have been moved, if not disturbed, during previous and fully justified attempts to save lives. Body recovery therefore becomes a question - right from the outset - of locating and safeguarding whatever evidence is still present. Again, the major obligation is one of safe documentation, the handling of which should be left in the hands of a Recovery Coordinator (cfr. Chart 4).

### 4.2.1        Recovery Coordinator

For the rescuing of survivors, a Scene Coordinator has been in charge; when rescue operations have come to an end, he should remain in charge since he knows best the facilities that are, or can be made, available to the coordinators of technical investigation and of body recovery now moving in. Together, the Technical Coordinator and the Recovery Coordinator should go over the scene and agree upon the proper sequence in their respective operations. If not done already, mapping out of the area has to be arranged and a corresponding grid chart produced in adequate number (cfr. page 19).

### 4.2.2        Search Teams

The Recovery Coordinator should realize that he is the one to start a chain of procedures aimed at final identification, and that the accuracy with which he handles his commitments may mean the difference between failure and success. The first thing will be to locate and mark all bodies and body parts, as well as other evidence still lying around. For this, he will need personnel to form Search Teams, each consisting of three persons and all to be thoroughly briefed about their obligations. Each team will be given equipment for marking ten (10) bodies and one consecutively numbered grid chart, and will be allotted one search line to follow through the area.

The Search Team members will be one leader responsible for all documentation, one member carrying stakes with coloured pennants (technical investigators will use a different colour for their markings), and one member carrying other equipment (hammer, string, plastic bags, etcetera). The stakes should be consecutively numbered, each stake carrying two numbers, one fixed and one detachable; the Recovery Coordinator will be responsible that no two stakes carrying the same number can possibly come into use.

Safe documentation is necessary to allow the Recovery Coordinator and his superiors a clear view of what is going on at any given time. He may therefore use a Search Team Assignment Form in triplicate on which the team number is listed together with the names of its members, the date and time of its being sent out, the stake numbers it carries, and the search line to follow. The team leader will sign this form and take the original + top copy with him. The form will include

ten horizontal lines on which the team leader will list his consecutive markings (number, grid coordinate, time). When returning to base, the Recovery Coordinator will sign the form, keep the original, leave the equally completed top copy to the team leader, and take over the grid chart; he will arrange for a Charting Team to currently compose returned grid charts into one master chart.

When a Search Team locates a body, a stake is placed next to it and the detachable number tied to the body (arm or leg); for all future handling, this number is now the Body Reference Number. The team leader will mark his grid chart with this number at the appropriate coordinate, then add the coordinate in indelible ink to the stake number and the number attached to the victim. Next, he will fill in his Assignment Form, and finally the Victim Identification Form, Part B (red), first with the Body Reference Number in the top right square. He should not mark the square MALE/FEMALE unless the sex is obvious. Under "Estimated Age" (item 022), he should only indicate child, young, middle-aged, or old. Under "Location" (item 023), the grid coordinate is entered, and under "Condition of Body" (item 024), the shortest possible description should be given. Under item 025, he will finally enter his team number and his signature.

When body parts are found, care must be taken not to jump to the conclusion that they probably belong to the nearest body. As a general rule, body parts should be numbered and described as if they were whole bodies, however with a capital "P" (for part) added to both stake number, body number, and the reference numbers on his Assignment Form and the identification form, Part B; otherwise, difficulties will be experienced in assessing the number of victims actually recovered. It follows, that a larger number of stakes (and consecutive numbers) may have to be used than there are victims involved.

Personal effects lying loose within 2-3 feet of the nearest body - and for some reason apparently belonging to that body - may be placed in separate plastic bags marked with the body number and placed on top of the body (not in pockets or otherwise). They will have to be clearly referred to on the ID-Form, Part B, for instance under item 023: Location. It has to be realized that they may not belong to the body after all (cfr. later).

Having completed a round of ten markings, the Search Team will return to base for new equipment and assignment; needless to say, all items marked have been left on the scene. Since there may be dead victims brought out from the area in previous operations and now stored at the Victim Check-Point or the First-Aid Station morgue, the Recovery Coordinator should delegate one Search Team the task of marking and listing these bodies; he will be responsible that the corresponding stakes are safely locked away.

Searching for, and the exact marking of, dead victims is a tiring commitment. No risks should be taken of letting fatigue cause inaccuracies in this procedure; as a consequence, Search Teams should work in no more than two-hour shifts. It is equally obvious that this job is best performed in full daylight; even extensive scene illumination has often proved insufficient when many search teams work simultaneously in each their part of the area.



#### 4.2.3 Effect Recovery Teams

Many effects lying scattered over the area may be highly valuable, at least to owners or heirs. Separate Effect Recovery Teams must be formed to operate in the same way as Search Teams (cfr. above). They will bring stakes with pennants in a different colour, and labels on stakes and plastic bags should be marked: E + grid coordinate (e.g. E - 45/86). In contrast to body recovery, Effect Recovery Teams may - having completed ten markings - pick up effect bags on their way back and bring them to the Property Depot (cfr. Fig. 1). When transport becomes available, all effect bags should be transferred to the PM Property Unit at the Mortuary Branch (cfr. later).

#### 4.2.4 Photography

Whenever a Search Team returns to base for new assignment, a photographer (a team ?) can be sent to take pictures of its ten completed markings. The photographer will keep his own detailed record of exposures made. Since no photograph must be taken in which the Body Reference Number is not clearly seen, the photographer will be fully responsible for - if necessary - moving the string-attached body number to a place more convenient for his purposes and for tying it back again when finished; a small slate or similar can be used instead, but extra numbers written on a piece of cardboard or similar are to be advised against. When returning to base, the photographer will report to the Recovery Coordinator and sign the appropriate ID-Forms, Part B (item 026) before going on a new round.

The photographer will himself be responsible for having films developed and prints made. He may well be a member of a scene unit working closely together with the PM Photography Unit in the Mortuary Branch, and responsible ultimately to the ID Photography Section in the Identification Centre (cfr. later). Such broader organization is to be recommended; it will allow better documentation - in particular if film and video techniques can be included - of the many operations carried out on scene and elsewhere, and it will provide highly valuable material for later efficiency studies as well as for teaching and training.

#### 4.2.5 Body Recovery Teams

Experience has shown that it may take some time before a Mortuary Branch can be set up and become operational; if so, searching and marking operations may well have been completed before it becomes time to start evacuating the bodies. For the latter, Body Recovery Teams will have to be formed and equipped, and again thoroughly briefed.

A body receiving point must be available. For this, the Recovery Coordinator should establish a regular Morgue Station, if possible by taking over and expanding as necessary the morgue facilities already established at the Victim Check-Point or the First-Aid Station (now shut down).

Body Recovery Teams should consist of at least three persons: one leader responsible for documentation, one member carrying a folding stretcher, and one member carrying other equipment (labels, string and rope, plastic bags, heavy-duty body bag); all three should be properly clad in coveralls and rubber boots, and bring rubber gloves and aprons. They will be sent away to recover one body at a time, the location of the latter to be clearly pointed out to the team leader on the master grid chart. Again, safe documentation is essential; the Recovery Coordinator will fill in a Recovery Team Assignment Form in triplicate (different colour from Search Team form) with team number and the names of its members, with date and time of its departure, and with the body reference number and the grid coordinate in question. The team leader will sign this form and take the original + top copy with him.

When reaching the body or body part to be evacuated, the team leader will first ascertain that stake number and body number are the same. He will then decide whether any loose parts should be separately bagged - to prevent leaking - before being placed together in one body bag. All precautions taken should be listed on his Assignment Form. Since the body number is to remain attached to the body, every separate bag and the body bag must be labelled with the body reference number and the grid coordinate, all in indelible ink. The body bag is then carried to the Morgue Station, the stake (with its fixed number) being left in place. It has been reported that - over rough ground - a body bag is most safely carried if hanging freely from the folded stretcher, the latter being carried as a pole over the shoulders; hereby, both bearers will be able to see where they put their feet.

At the Morgue Station, the receiving officer will take over responsibility for the body by signing the team Assignment Form. The team will return to base where the Recovery Coordinator will also sign this form, keep the original, and leave the equally completed top copy to the team leader. The Recovery Coordinator will keep a currently updated list of bodies and body parts evacuated from the scene.

#### 4.2.6 Morgue Station

The Morgue Station is an interim holding point for bagged bodies and body parts until transport can be arranged; whenever the Mortuary Branch becomes operational, the Recovery Coordinator will arrange for such transport and supervise evacuation. The Morgue Station will keep its own record of bodies received and stored, listing reference number, date and time, received from (team number), and where stored - and with space on the same line for listing when evacuated, by whom, and where to (date and time, vehicle's license number, driver's name, mortuary address).

As was the case with survivors, a Transport Form in triplicate will again have to be used; it will list reference number(s), date and time of departure, name of driver (pilot/captain), license number of vehicle (airplane/ship), and destination. The driver will sign this form, take the original + top copy with him and have them signed by the receiving officer, and keep the copy for himself. In some cases, it may be convenient to let the driver also take along the completed ID-Forms, Part B, for each of the victims (body bags) carried, in order that they may follow the victim to the Mortuary Branch where they are immediately needed; it is the safest, however, to have these most important documents forwarded by separate and personal dispatch.

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When the last victim has been evacuated from the Morgue Station, the Recovery Coordinator can dismiss personnel and report to the Scene Coordinator. The latter will remain in charge until technical investigation has been completed and/or security over the disaster site revoked.

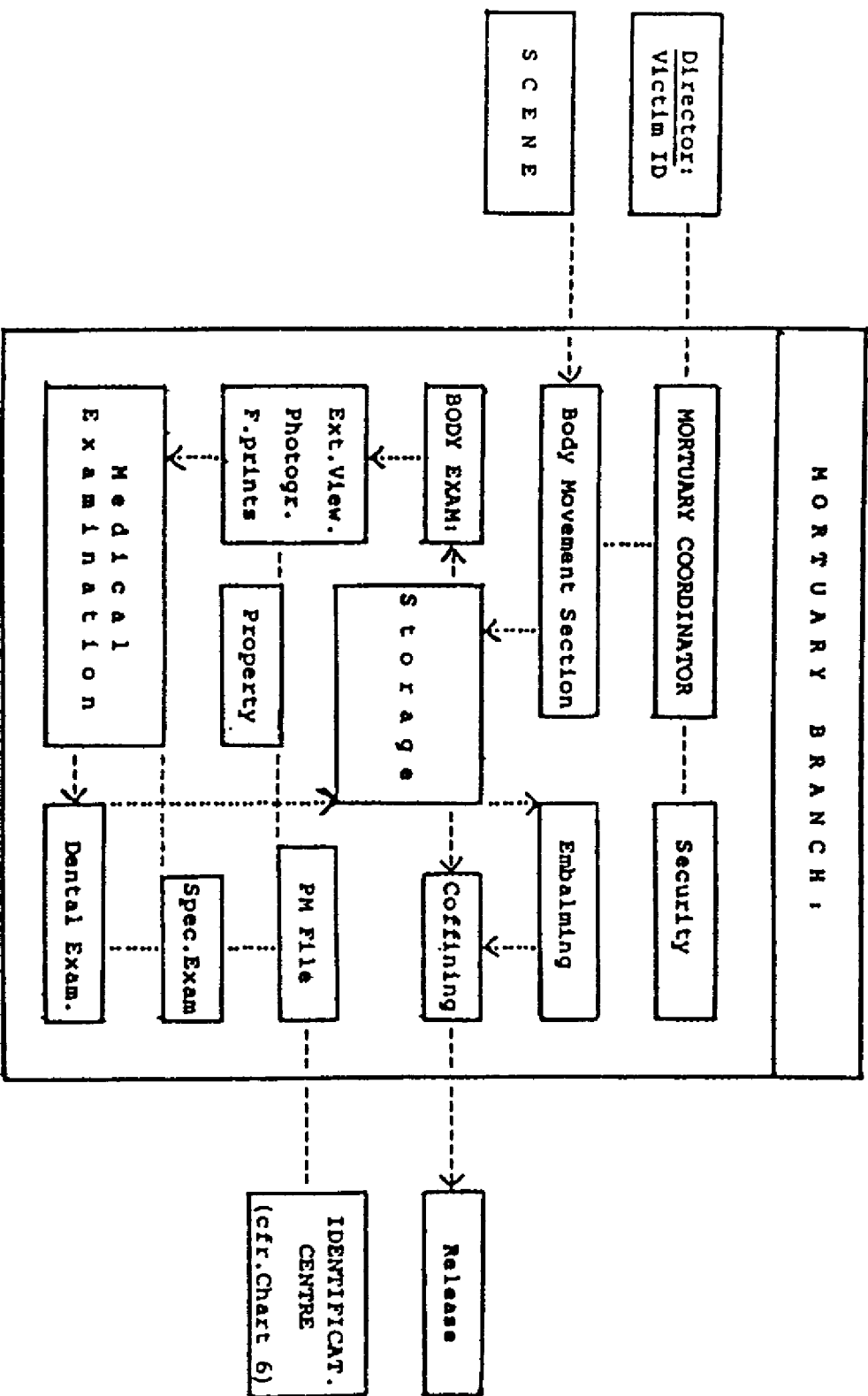


Chart 5: Mortuary Branch.

### 4.3            MORTUARY BRANCH

A Mortuary Branch must be established on premises affording a minimum of facilities, the possibilities ranging from a large and well equipped Medical Examiner's Office or Institute of Forensic Medicine/ Pathology - to an ice-rink where at least body bags can be kept refrigerated (cfr. Chart 5). Depending upon the location of the disaster, it may even be necessary to establish this branch on scene, using separate tents (field hospital) for the various and time consuming operations to be carried out and, again, refrigerated trucks for body storage. In the latter case, great problems will have to be anticipated in providing equipment as well as sheltering and catering for all personnel involved (cfr. Fig. 1), so the Investigator-in-Charge and the Director of Victim Identification will have an important and early decision to make on where to arrange for the physical examination of the victims.

#### 4.3.1        Security Section

If the Mortuary Branch has not been established within the disaster area, a Security Section will have to be set up, its commanding officer being responsible for deploying personnel and making all practical arrangements. Strict precautions are necessary not just to ensure peace of work for all those to become involved in the examination of the bodies, but also because considerable property values may become transferred to the branch, and because it has been a recurrent experience that unauthorized persons may attempt to gain unwarranted access.

#### 4.3.2 Body Movement Section

The Body Movement Section is responsible for the intake of bodies, their storage before and after examination, their embalming where appropriate, and their ultimate release. Strict control of the movements of every single body and its whereabouts at any given time is necessary to ensure an effective flow in the various examinations to be carried out; accordingly, this section should be headed by a senior police officer.

The first decision to make concerns the way in which bodies are to be moved within the mortuary, whether on wheel tables or on stretchers; if at all possible, the former has to be recommended. Next, a Body Reception Point has to be selected somewhere near existing facilities for storage. At the Body Reception Point, a receiving officer will take over responsibility for every body or body bag brought in by signing the Transport Form of the driver, keep the original, and leave the copy to the driver. He will then fill in his Body Storage List (one sheet per bag) with the Body Reference Number, date and time of receipt, and where stored. Storage may depend on the condition of the body and the sequence in which it is later to be passed on for examination - details that should be discussed with one of the pathologists from the PM Medical Unit.

If a body is received unmarked, thus has been evacuated from the disaster site before marking operations came under control, it must be given a Mortuary Reference Number consisting of a capital "M" and a consecutive number written in indelible ink on a 20x30 cm cardboard plate and tied to the body (arm or leg). In summing up, body bags will be marked either with a reference number and a grid coordinate (e.g. "46 - 102/83"), or with a reference number with a "P" added for "part" - and a grid coordinate (e.g. "47 P - 103/84"); the reference numbers are part of one and the same series used on scene, with corresponding stakes. Bodies or body parts numbered at the Mortuary Branch will invariably carry a preceding "M" and a reference number pertaining only to the mortuary, e.g. "M - 12", and there will obviously be no grid coordinate. Since no ID-Form, Part B, will have been filled in for M-numbered bags, a PM Records Officer should be called to do so (cfr. later). All bags carrying E-numbers (e.g. E - 45/86) are property bags and should not be mixed up with (not stored together with) body bags; an officer from the PM Property Unit should be called to sign the driver's Transport Form and take over responsibility for their further handling and storage.

Whenever a body is taken from storage to examination, this has to be indicated on the storage sheet of that body (date and time), on which the PM Records Officer taking over the body will also sign his name. When the latter returns the body after examination, this again is indicated on the storage sheet and the receiving officer will now sign his name on the PM Records Officer's Check List (cfr. later), thereby resuming responsibility for the body.

Facilities for embalming may have to be established within the Body Movement Section and specialist personnel called in as necessary; it should be remembered that bodies may have to be re-examined, for which reason only identified bodies should be embalmed. Coffining and storage of coffins may require quite some separate space. Release of bodies for burial should take place only upon direct orders from the Investigator-in-Charge of the Director of Victim Identification.

#### 4.3.3 PM Records Section

The PM Records Section is responsible for collecting and keeping together all postmortem description of each individual body. An officer from this section should be posted at the Body Reception Point in order to take over all ID-Forms, Part B (red), brought along with the bodies. If this form is not forwarded together with a marked and bagged body, arrangements must be made to have it transferred from the scene. For unmarked and unbagged bodies, the PM Records Officer will himself fill in an ID-Form, Part B (red), which will be M-numbered.

A body to be moved into the examination room for physical description should be in the custody of a PM Records Officer; he should follow the body through all examination procedures until it can be returned for storage. Accordingly, he will sign his name on the storage sheet of the bag in question when he takes over, and he will have his own PM Check List signed by the receiving officer when he returns it.

The PM Records Officer will bring with him one set of PM documents, i.e. all the red parts of the INTERPOL ID-Form, and all marked with the reference number in question. These documents are:

- Part B - a form containing summary data listed at the recovery site and forwarded from there, or - if M-numbered - containing no data except the reference number. The reference number should be immediately transferred to all the following parts of the ID-Form;
- Part C - the PM Records Officer's Check List;
- Part D - a form for describing external physical features;
- Part E - a form for describing clothing and other property worn or attached to the body;
- Part F - a form for listing additional information;
- Part G - the final identification document, to be filled in later by a qualified doctor;
- Part H - an addendum for listing findings during medical autopsy of importance in establishing cause of death;
- Part J - a form for the specific description of dental findings.

In the body examination room, the PM Records Officer will follow the body through the various stages of examination in the sequence most convenient at the time. Since photography and fingerprinting takes considerably less time than the external and internal physical description, he may have to ask a member of the PM Photography Unit or the PM Fingerprint Unit to step in at any appropriate time. The members of these units will keep their own records, so the PM Records Officer will only list time and name of the specialist involved on his Check List.

When proceeding to the table or place for physical description, the PM Records Officer should be the one to take down, upon dictation, the findings concerning clothing and other property as it is removed (Part E, possibly F). He should also, upon dictation, list external physical features (Part D, possibly F). He may finally be the one to list internal autopsy findings (Part H), but if two pathologists participate, it may be better to let one of them do the listing. Dental examination will be carried out by three dentists, one of whom should fill in Part J because of the specific terminology used; if two dental teams have been set up to examine the same body independently (for accuracy control, but possible only if the PM Dental Unit is well organized), the PM Records Officer in charge should refuse to receive but one Part J, the exactness of which both teams agree upon.

When physical examination of the body has been completed, the latter will have to be re-bagged before being returned for storage; again, it must be correctly numbered. The PM Records Officer should check once more that he is in possession of all parts of the ID-Form concerning this body, before he hands his document set to the PM File Section; if documents are missing because of ongoing specific examination (special photography or radiography), this should appear clearly from his PM Check List (Part C).

#### 4.3.4      Body Examination Section

The Body Examination Section will be responsible for providing personnel (specialists, mortuary attendants) and all the facilities necessary for carrying out body examination procedures effectively (space under roof, ventilation, good light, running water, tables, instruments, clothing). Most often, presence of these facilities has decided in the first place, where to set up the Mortuary Branch; even if not perfect, they may have to be accepted as the best available under the circumstances. These facilities should include office space for the various units involved (photography, fingerprint, property, medical, dental) and separate rooms for property cleaning, specimen photography, dental x-ray examination, etcetera. Units in this section should work in no more than two-hour shifts, so catering and possibilities for rest may have to be provided.

Together with the specialists involved, the Chief of Body Examination will have to decide how many examination points can be set up and which sequence to follow in the examination of the individual body. If wheel tables are available, a given body can be moved from point to point, each manned with one group of specialists having their instruments within reach; if bodies have to be placed on fixed tables, the various specialist groups will have to come to the table in turn, bringing their instruments.



#### 4.3.4.1 PM Photography Unit

Many photographs may have to be taken of each body during its examination, preferably in colour, and most often at intervals, e.g. when an item or a body part has been laid free. If one photographer can be assigned to each body, thus follow it all through the examination, this will ensure that every item is photographed as soon as it is ready; otherwise, the PM Records Officer will have to find a photographer each time a new item is ready. In every single photograph, the Body Reference Number must be clearly visible.

The photographer will keep his own record of exposures made, one for each film and listing film number, exposure numbers, reference number, item, date and time, and to be signed by the photographer before being handed - together with the exposed film - to the PM Photography Unit which will arrange for processing (development, enlarged prints, special display).

Since property items taken from the bodies may have to be cleaned and disinfected prior to photography, the PM Photography Unit may receive such items from the PM Property Unit at a later time and with a request for special exposures. Similarly, the PM Property Unit may have received separate property bags from the disaster scene; upon cleaning, such property will also be forwarded for photography. Accordingly, facilities for separate item photography may have to be found.

The PM Photography Unit will be responsible for all films sent out from the Mortuary Branch for processing, and for their proper return (personal dispatch?). Whenever its photographic documentation of findings in the individual victim is considered complete, it should be forwarded directly to the ID Photography Section for inclusion under the appropriate reference number and later use.

#### 4.3.4.2 PM Fingerprint Unit

The PM Fingerprint Unit will be the smallest among those assigned to the Body Examination Section since, in general, the procedures involved will take less than ten minutes (depending upon the condition of the body). It will be up to the PM Records Officer to call a member of the PM Fingerprint Unit at any convenient time, most often just after undressing and while clothing and other property is being described. The fingerprint expert will be responsible that every set of prints is marked with the Body Reference Number and signed; he will keep his own consecutive list of bodies fingerprinted (date, time, reference number, possible remarks). Completed prints should be forwarded directly to the ID Fingerprint Section for classification and later use.

#### 4.3.4.3 PM Property Unit

A body brought forward for examination will generally be found encased in a heavy body bag. Mortuary attendants and the PM Property Officer will open the bag and display its contents, checking that everything is correctly marked. At least one pathologist should be present.

If separate bags containing minor effects have been deposited together with the body, their contents should be described first. As for the body itself, it should be searched for pocket contents before clothing is cut open, removed piece by piece, and examined for laundry or dry cleaning marks; if found, such marks are to be cut off and kept together with characteristic samples of clothing. Lastly, rings, watches, etcetera are removed. All property should be described as it is removed, the PM Records Officer taking dictation and using the ID-Form, Parts E and F.

The PM Property Officer will take over all effects removed from the body, bag and mark them, and forward them to a Property Cleaning Team (cleaning and disinfection). Upon cleaning, arrangements must be made for having all items photographed as well as described in detail; for the latter, the PM Property Unit will need a separate room. These procedures will take time, so completed descriptions will have to be forwarded directly to the ID Property Section for inclusion under the appropriate reference number and later use. The PM Property Unit will be responsible for keeping all personal effects under lock, ready for re-examination if necessary, for viewing by family members where and when appropriate, and for final delivery.

Property recovered separately from the disaster scene (E-numbered) may have been received and stored already. Since such property will be of little if any use to victim identification, care should be taken not to mix it with property taken from the bodies. E-numbered bags should be opened and the contents cleaned, photographed and described last; not until victim identification has been completed will there be time for the ID Property Section to attempt to "identify" also these items and see them returned to the families concerned.

#### 4.3.4.4 PM Medical Unit

A pathologist will conduct the external examination and description of the naked body, the PM Records Officer taking dictation and using the ID-Form, Parts D and F. A photographer should always be called to take full-body and full-face pictures (where possible), as well as close-ups of specific external findings; he may also be needed during the following internal examination.

For conducting the internal examination, a second pathologist may have to assist and/or take over the recording of findings on the ID-Form, Part H. Particular attention must be paid to all possibly identifying features, important findings being photographed. If specimens or samples are taken, the PM Medical Unit will be responsible for their further handling and for results eventually reaching the ID Medical Section. When all bodies have been examined (plain-numbered and M-numbered bags), bags containing body parts will have to be equally processed. If remains of teeth and jaws are found here, the PM Dental Unit must be advised.

#### 4.3.4.5 PM Dental Unit

Dental examination should be carried out by a team of three dentists, one of whom will fill in the ID-Form, Part J. Laying open, cleaning, and describing dentition in detail may take some time; it will therefore have to be foreseen, that dental examination may delay the flow of bodies through the examination room. This will become even more apparent if two dental teams are required to examine each body before a final description is established. Accordingly, enough dental teams should be available.

If possible, the PM Dental Unit will arrange for a dental x-ray apparatus to be set up at a convenient place within the examination room (radiation precautions), in which case bodies will have to be moved here consecutively for exposures. The unit may also have arranged for its own special photography of teeth in place, or of specimens removed. It will be responsible for film processing and for any further information gained from its examinations being added to the description in Part J. Finally, if jaws or teeth are taken from a body, the unit will again be responsible for all further handling and for additional data being properly recorded. This may well mean that the PM Records Officer will have to leave Part J with the PM Dental Unit, the latter to forward it directly to the ID Dental Section when complete. The examination and description of teeth and jaws found in body part bags will conclude the operations of the PM Dental Unit.

#### 4.3.5 PM File Section

The PM File Section will collect PM document sets on individual bodies currently as they are handed over by the PM Records Officers involved. Since photographs, final property description, and specific medical and dental data may not yet be available, the PM File Section will have a major task of keeping track of still missing data and ensuring their correct filing when received.

PM document sets should be filed numerically in the three groups: 1) plain-numbered, 2) those with a "P" added, and 3) M-numbered. E-numbered documents should not be filed in this section but be forwarded directly to the ID Property Section.

The PM File Section will be responsible for keeping its files under lock until they can be transferred to the ID File Section. For practical reasons, document sets may have to be transferred before being complete; if so, it must be clearly indicated what is missing and will be forwarded later.

It may be worth mentioning that, should copying become necessary, copies of yellow and red sheets of the ID-Form will all appear black-and-white; in handling black-and-white documents, it should be constantly checked therefore (upper left corner) whether they concern a dead body or a missing person.

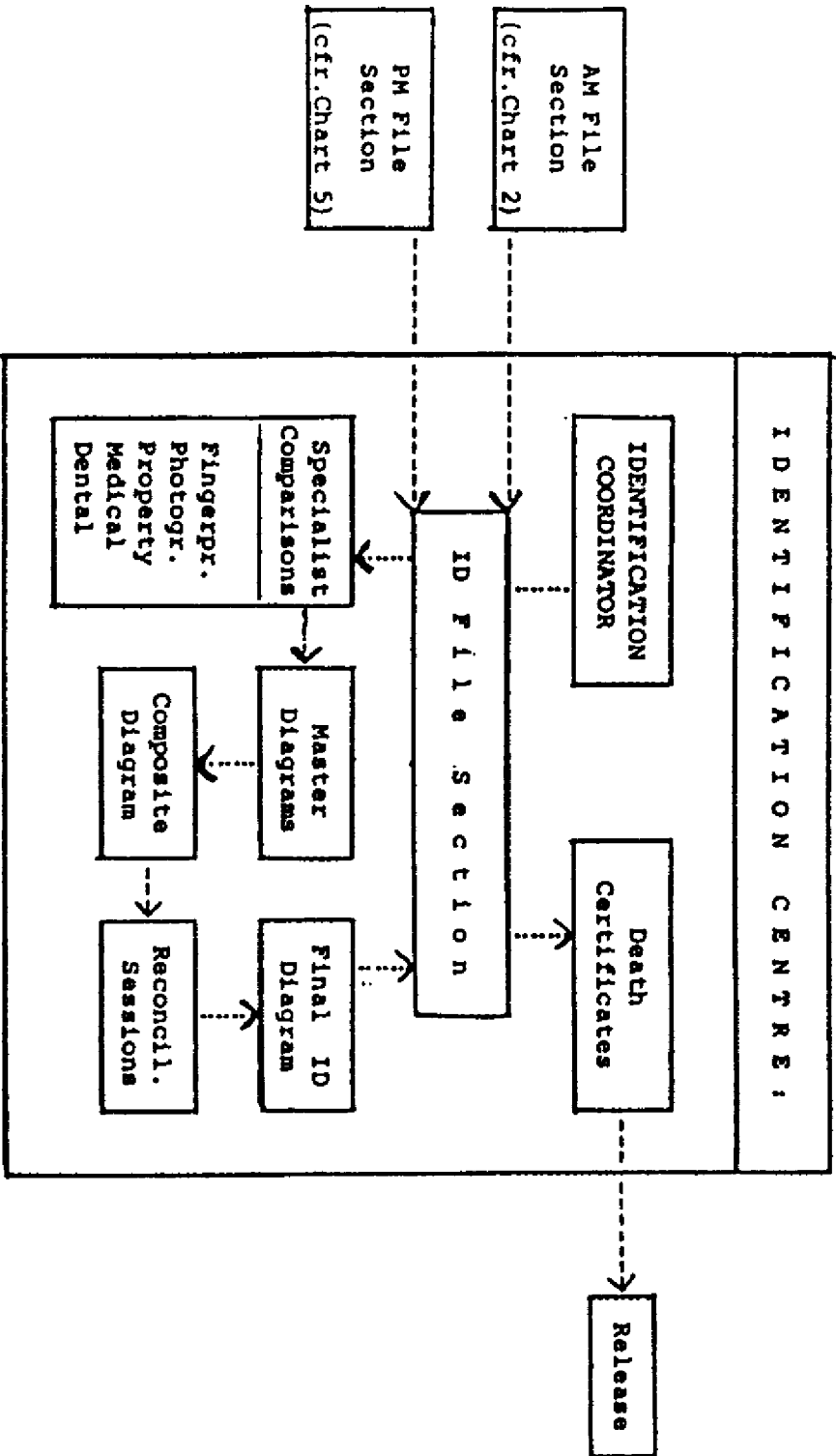


Chart 6: Identification Centre.

#### 4.4 IDENTIFICATION CENTRE

The Identification Centre is the place where AM and PM documents from the AM and PM File Sections are brought together for comparison (cfr. Chart 6). It consists of an ID File Section and a number of specialist sections, the latter responsible for comparing each their professional part of the AM and PM data. The results obtained in the specialist sections are fed back to the ID File Section where they will be combined into one master list of results.

For practical reasons, the AM and PM File Sections will have been established in the closest possible connection with their respective sources of information. The Identification Centre, on the other hand, can be set up independently wherever adequate facilities are available (offices, copying service, computer assistance, projectors); however, it will be found by far the most convenient if the centre can be established as an extension either of the Missing Persons Branch (in the Communications Centre) or of the Mortuary Branch. Personnel from the AM and PM File Sections can be transferred to the ID File Section whenever the work pressure on one or both starts to diminish.

##### 4.4.1 ID File Section

The ID File Section will be in charge of all AM and PM document sets as they begin to flow in. It will keep in touch with the AM and PM File Sections as long as they function, i.e. until a final Victim List has been established and complete AM document sets have been received for all names on this list, and until complete PM document sets have been received on all bodies recovered unknown.

The ID File Section will start with setting up one AM file (alphabetical order) and one PM file (numerical order), the latter subdivided in the same groups as was the file from which the PM data came, namely M-numbered records, plain-numbered records, and records having a "P" added to their number. Of these, the subfile of reference numbers with a "P" added should be set aside for the time being. The chance that body parts can be independently identified is small, but it may become possible later to refer a given body part to a given body; this will be for the experts in the ID Medical Section to handle, once they have finished comparing body data (M-numbered and plain-numbered) with AM data. Accordingly, the ID File Section will be concerned with one AM file (total) and one PM file (M-numbered and plain-numbered records). These two files now have to be rearranged.

#### 4.4.1.1 File Subdivision

The major obligation of the ID File Section is to prepare, to pilot, and to control all comparisons to be made by the specialist sections. In theory, the data on every unknown body should be compared with the data on every missing person. Depending upon the number of victims, this may prove a considerable, if not an enormous task. It is also an unnecessary task if the material to be compared can be subdivided into groups between which there is little risk of overlapping. As an example: If PM data on ten bodies are to be compared with AM data on ten missing persons, the maximum number of comparisons to conduct will be one hundred (10x10). However, if the bodies are five males and five females, and the missing persons are also five males and five females, then only fifty (25+25) comparisons will be necessary. - This means that, wherever possible, identification material should be subdivided into clearly distinguishable groups, thereby sparing specialist sections the trouble of conducting unnecessary comparisons. The following three subdivisions are recommended for use in a mass disaster situation: 1) male/female, 2) white/non-white, and 3) below 15/ 15-70 / above 70. Using these subdivisions, the ID File Section will be able to rearrange its AM file in the following twelve (12) groups:

- 1) male , white , below 15
- 2) - , - , 15-70
- 3) - , - , above 70
- 4) - , non-white, below 15
- 5) - , - , 15-70
- 6) - , - , above 70
- 7) female, white , below 15
- 8) - , - , 15-70
- 9) - , - , above 70
- 10) - , non-white, below 15
- 11) - , - , 15-70
- 12) - , - , above 70.

The PM file should be similarly rearranged and irrespective of whether records are M-numbered or plain-numbered. Only AM and PM documents from one group at a time should subsequently be handed over to specialist sections for comparison.

There will be borderline cases. For instance, the PM description of an elderly man may include the statement: "Age: 70+" - which is an assessment not necessarily true. Nevertheless, the ID File Section will have to place this PM record in the "above 70" group, by which - if not true - the specialist sections will become asked to conduct a series of unnecessary comparisons in this case. However, they will be few in view of the number of other comparisons avoided; they will also stand out more and more clearly as identifications and eliminations begin to isolate them (cfr. later).

Having rearranged its AM and PM files, and before launching into distributing AM and PM documents to the various specialist sections for comparison, the ID File Section should realize that some identifications will be easier to make than others - and that there may be bodies which cannot be identified at all. Since it is not known beforehand whether a given body will prove to be an easy, a difficult, or an impossible case to solve, a systematic approach to the comparison phase is absolutely necessary. The experts in the various sections will know, what priority and what weight to attribute to the various features used for identification within their respective fields, but experience has shown that - even if quick identifications are wanted by all concerned - the temptation to start looking for the most obvious cases of data correspondence, the "easy ones", should be resisted; it does not expedite the overall identification procedure. On the contrary, since all cases which were not obvious (certainly the majority) will have to be taken up again sooner or later for renewed comparison, a flow of papers back and forth has been started which will soon prove difficult to control. Instead, specialist sections must be instructed to conduct their comparisons systematically and to the end, coming up with a clear conclusion of either "identity", "uncertain", or "elimination" in each individual case. Furthermore, and for safely listing their comparison results, all specialist sections should be thoroughly briefed in the use of a standard elimination diagram.

#### 4.4.1.2 Elimination Diagram

(While it has been assumed so far, that member countries will use the INTERPOL Victim Identification Form for listing AM and PM data, it should be mentioned here that it is up to the individual country to decide whether or not it also wishes to use the standard elimination diagram described in the following.)

The elimination diagram is the simplest tool available for retaining a clear view of what has been accomplished. It consists of a grid of squares (like squared paper) on which horizontal rows are marked along the left margin with the names of missing persons, while vertical rows are marked at the top with body reference numbers; each body and each missing person will therefore have one square in common (cfr. Fig. 2). When the PM data of one unknown body have been compared with the AM data of one missing person, the result of the comparison is listed in the common square.

Elimination diagrams represent a means of splitting up a complicated procedure in manageable units. The unit here recommended is 10x10, i.e. ten names and ten body reference numbers on one diagram, totalling one hundred comparisons. The diagrams are to be prepared and kept in meticulous order by the ID File Section. The volume of work involved should not be underestimated, nor its importance.

Ideally, names should be listed alphabetically, numbers in numerical sequence. Unfortunately, this is only possible to a degree, since AM and PM document sets will not reach the ID File Section in alphabetical and numerical order respectively. This has to be accepted; the comparison and identification phase cannot be delayed until all AM sets and all PM sets have been received. Accordingly, it will become necessary to keep also AM and PM document sets together in blocks of ten, namely those that have been combined in one elimination diagram. For each of the twelve groups in which the material has been subdivided, there will be blocks of ten - as many as the number of persons or





Part	Sex Group: FEMALE			Block	Specialist Section										
	Race Group: White				M E D I C A L										
Age Group: 15-70			Age	M-	02	07	13	19	26	27	38	41	51		
A	B---	B.	31												
	D---	D.	52												
	F---	F.	17												
	H---	H.	29												
	J---	J.	48												
	L---	L.	66												
	N---	N.	58												
	P---	P.	51												
	R---	R.	22												
	S---	S.	37												

Fig. 3. Elimination diagram prepared by ID File Section and ready for submission to ID Medical Section - together with corresponding AM and PM documents.

As soon as the first ten AM document sets pertaining to one group have been received, they can be arranged alphabetically and an elimination diagram filled in with the names; this diagram should be marked Part "A" (left margin). The documents are kept together as a block and should not become mixed with other AM documents from the same group. When the next ten AM sets pertaining to the same group become available, they are separately arranged in alphabetical order and a second elimination diagram filled in with these names. This second diagram should be marked Part "B" (left margin) and, again, the documents kept together separately as a block.

As soon as the first ten PM document sets pertaining to this group have reached the ID File Section, they can be arranged in numerical order and the first elimination diagram, Part A, be completed with these reference numbers along the top; under "Block", the block number "1" is written. This diagram is now ready to be photocopied, whereupon one copy and the corresponding AM and PM documents can be distributed to each of the specialist sections for comparison; each diagram copy must be marked in the top right corner with the name of the section in question (cfr. Fig. 3). If within this group there are further diagram parts (B, C, and so on), the latter must be filled in with the same ten reference numbers as Part A (same sequence, same place) and all be marked Block "1". At the same time, it must be foreseen that further PM document sets will sooner or later become included in this group.

When the next ten body reference numbers pertaining to this group become available, they can again be arranged in numerical order. A new block of diagrams must be filled in with the names of all missing persons in the group (same sequence, same place) and marked Parts A, B, and so on; all diagrams in this second block are marked Block "2" at the top. Further body reference numbers in this group will have to be arranged in Blocks "3", "4", and so on - and for each block a complete set of diagrams written out with missing persons' names (Part (Part A, B, and so on)).

It is to be recommended that one master - and one only - be established of each separate diagram. The ID file Section will keep this "original" and leave copies of it to the various specialist sections for their comparisons. Only hereby can it be ensured that all specialist sections will invariably work with the same diagram, and that their results will be immediately comparable later on.

While the procedure just described may look complicated to the inexperienced eye, this is not really so if the idea behind the use of the elimination diagram is fully understood and strictly adhered to. The reasons for subdividing the whole comparison phase in units of one hundred (10x10) are several:

- 1) Those involved will all be interested in bringing victim identification to a successful end as soon as possible; relatives, the public, and the media will clamour for quick results. However, nothing should be allowed to jeopardize the safety of the results obtained. What is humanly possible to speed up the whole procedure can only be done by grouping the material (avoiding unnecessary comparisons) and by systematizing the comparison phase.

- 2) It will take time before also the last body recovered has been completely described, but it is not necessary to wait for this to occur before comparison procedures are started in the specialist sections. A prerequisite will be, that a system is used which can ensure that - sooner or later - the PM data of every unknown body within a given group will be compared with AM data of all missing persons in the same group, and that comparison results can be safely recorded. In practice, the system here recommended fulfils these objectives, and it allows the comparison phase to become started as soon as the first ten bodies within one of the groups chosen have been examined.
- 3) In order to be able to safely steer the whole comparison phase, it is necessary for the ID File Section to delegate tasks to the specialist sections that are understandable and manageable. Conducting one hundred comparisons is a task that can be coped with by every specialist section.
- 4) The comparison phase is the most critical of all the combined victim identification procedures. It is very tiring to remain alert and absolutely exact in every detail over a prolonged period. One hundred comparisons will - on the average - be handled within 2-3 hours; no specialist section should therefore be asked to complete more than one elimination diagram before a rest is taken. Depending upon the volume of comparisons to make (number of victims), two or more teams may have to be assigned within each specialist section, relieving one another or working simultaneously as the workload dictates.
- 5) Specialist sections will not take the same time to complete one elimination diagram. It is therefore essential that limited units of work are set up, allowing the ID File Section to forward new material to a given section whenever it is ready.
- 6) The unit of 10x10 comparisons here recommended will allow the ID File Section to consecutively build up a master diagram of results obtained from each specialist section concerning victims in one group. When master diagrams for this group have been set up for all specialist sections, they can be combined and a list of initial identifications prepared (cfr. later).

Part A	Sex Group: <u>FEMALE</u>		Race Group: <u>WHITE</u>		Age Group: <u>15-70</u>		Block <u>1</u>		Specialist Section: <u>MEDICAL</u>	
	B----, B.		D----, D.		F----, F.		H----, H.		J----, J.	
L----, L.		N----, N.		P----, P.		R----, R.		S----, S.		Age
										31
										52
										17
										29
										48
										66
										58
										51
										22
										37
										M-
										02
										02
										07
										13
										19
										26
										27
										38
										41
										51

Fig. 4. Completed elimination diagram as returned from the ID Medical Section to the ID File Section.