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CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) WEAPONS

Report of the Secretary-General

1. At its forty-second session, the General Assembly adopted resolution 42/37 C of 30 November 1987, the operative part of which reads as follows:

"The General Assembly,

"...

"1. Reiterates its call to all States to observe strictly the principles and objectives of the 1925 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, and condemns all actions that violate this obligation;

"2. Urges all States to be guided in their national policies by the need to curb the spread of chemical weapons;

"3. Recognizes the need, upon the entry into force of a chemical weapons convention, to review the modalities available to the Secretary-General for the investigation of reports of the possible use of chemical weapons;

"4. Requests the Secretary-General to carry out investigations in response to reports that may be brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons that may constitute a violation of the 1925 Geneva Protocol or other relevant rules of customary international law in order to ascertain the facts of the matter, and to report promptly the results of any such investigation to all Member States;

"5. Requests the Secretary-Qeneral, with the assistance of qualified experts provided by interested Member States, to develop further technical guidelines and procedures available to him for the timely and efficient investigation of such reports of the possible use of chemical and bacteriological (biological) or toxin weapons;

"6. Also requests the Secretary-General, in meeting the objectives set forth in paragraph 4 above, to compile and maintain lists of qualified experts provided by Member States whose services could be made available at short notice to undertake such investigations, and of laboratories with the capability to undertake testing for the presence of agents the use of which is prohibited)

"7. Further requests the Secretary-Qeneral, in meeting the objectives of paragraph 4 abover

"(a) To appoint experts to undertake investigation of the reported activities;

"(b) Where appropriate, to make the necessary arrangements for experts to collect and examine evidence and to undertake such testing as may be required)

"(c) To seek, in any such investigation, assistance as appropriate from Member States and the relevant international organizations;

"8. Requests Member States and the relevant international organisations to co-operate fully with the Secretary-General in the above-mentioned work;

"9. Requests the Secretary-General to submit a report to the General Assembly at its forty-third session on the implementation of the present resolution. "

2. Pursuant to paragraph 5 of the resolution, the Secretary-General appointed a group of qualified experts, which held one session at Geneva from 15 to 19 August 1988. Furthermore, pursuant to the same resolution, the Secretary-General, in a note verbale dated 21 March 1988, inter alia, drew the attention of all Member States to paragraph 6 of the resolution, and in that connection stated that he would appreciate receiving any names of qualified experts and of laboratories that they might be in a position to provide for the purposes referred to in the resolution. Replies were received from 21 Member States and were contained in annex II to the report of the Secretary-General on chemical and bacteriological (biological) weapons (A/43/690 and Add.1).

3. As noted in a letter dated 19 August 1988 from the Chairman of the group of qualified experts addressed to the Secretary-General (A/43/690, annex I), he indicated that, although a very substantial amount of work was accomplished, the group was not in a position to submit its final consolidated report at the conclusion of that session. Accordingly, the group requested that due consideration be given by the General Assembly at its forty-third session to the possibility of extending the time period for completion of the work involved.

4. Subsequently, at its forty-third session, the General Assembly adopted resolution 43/74 A of 7 December 1988, the operative part of which reads as follower

"The General Assembly,

"...

"1. Renews its call to all States to observe strictly the principles and objectives of ths Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Oases, and of Bacteriological Methods of Warfare, and condemns vigorously all actions that violate this obligation;

"2. Calls upon all States that have not yet done so to accede to the 1925 Geneva Protocol;

"3. Urges the Conference on Disarmament to pursue as a matter of continuing urgency its negotiations on a convention on the prohibition of the development, production, stockpiling and use of all chemical weapons and on their destruction;

"4. Calls upon all States to be guided in their national policies by the need to curb the spread of chemical weapons pending the conclusion of such a convention;

"5. Requests the Secretary-General to carry out promptly investigations in response to reports that may be brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin weapons that may constitute a violation of the Geneva Protocol or other rules of customary international law in order to ascertain the facts of the matter, and to report promptly the results of any such investigation to all Member States, in accordance with the procedures established by the General Assembly in its resolution 42/37 C;

"6. Also requests the Secretary-General, pursuant to resolution 42/37 C, with the assistance of the group of qualified experts provided by interested Member States, to continue his efforts to develop further technical guidelines and procedures available to him for the timely and efficient investigation of such reports of the possible use of chemical and bacteriological (biological) or toxin weapons, and to report to Member States as soon as possible;

"7. Requests Member States and the relevant international organisations to co-operate fully with the Secretary-General in the above-mentioned work;

"8. Decides to include in the provisional agenda of its forty-fourth session the item entitled 'Chemical and bacteriological (biological) weapons'."

5. Pursuant to paragraph 6 of resolution 43/74 A, the group of qualified experts appointed earlier in 1988 by the Secretary-General was reconvened and held two sessions at Geneva from 6 to 17 February and 31 July to 11 August 1989.

6. The present report is submitted in accordance with the request of the General Assembly contained in paragraph 6 of its resolution 43/74 A, Annex I contains the report that the group of qualified experts, in their personal capacities, have submitted to the Secretary-General and annex II contains replies received to the note verbale dated 21 March 1988 of the Secretary-Qeneral since the submission of the previous report (A/43/690 and Add.1).

7. The Secretary-Qeneral wishes to thank the group of qualified experts for its report. It should be noted that the recommendations contained in the report of the group of qualified experts are those of the experts themselves. In that connection, the Secretary-General would like to point out that, with respect to the complex and technical issues covered by the report, he is not in a position to pass judgement on all aspects of the work accomplished by the exports.

ANNEX1

Report of the group of qualified experts established in pursuance of General Assembly resolution 42/37 C

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LETTER OF TRANSMITTAL

11 August 1989

Sir,

We have the honour to submit herewith the report of the group of qualified experts appointed by you in pursuance of resolution 42/37 C of 30 November 1987, which was reconvened in pursuance of General Asesmbly resolution 43/74 A of 7 December 1988.

The qualified experts appointed by you were the following!

Dr. Gustav Andersson. Ph.D.
Swedish Defence Research Establishment
NCC Defence Department
Head of Chemical Division
Umeå, Sweden

Dr. Pierre Jean-Marie Canonne
Chief Pharmaceutical Chemist of the Armed Forces
Scientific Adviser to the Mission of France to Che Disarmament Conference (Geneva)

Maj.-Gen. Dr. Esmat A. Ezz, M.B., B.Ch., D.M., Ph.D.
Egyptian Armed Forces (retired)
Cairo, Egypt

Lt.-Gen. Anatoly D. Kuntzevitch
Professor
Full Member of the Union of Soviet Socialist Republics Academy of Sciences
Moscow, Union of Soviet Socialist Republics

Mr. Peter Poptchev
First Secretary
Head, Disarmament Section
United Nations and Disarmament Department
Ministry of Foreign Affairs
Sofia, Bulgaria

His Excellency
Javier Pérez de Cuéllar
Secretary-General of the United Nations
New York

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Dr. Barbara A. B. Seiders
Physical Scientist
Bureau of Verification and Intelligence
United States Arms Control and Disarmament Agency
Washington, D.C., United States of America

Pursuant to resolution 42/37 C, the group of qualified experts held one session at Geneva between 15 and 19 August 1988. As noted in my letter of 19 August 1988 addressed to you, the group was not in a position to submit its final report at that session although a very substantial amount of work was accomplished. Accordingly, the group requested that due consideration be given by the General Assembly at its forty-third session to the possibility of extending the time period for completion of the work involved.

Pursuant to General Assembly resolution 43/74 A, dated 7 December 1988, the group was reconvened and held two sessions at Geneva from 6 to 17 February and 31 July to 11 August 1989 when the group finalized its report.

The members of the group of qualified experts express their gratitude for the assistance that they received from members of the Secretariat of the United Nations and of the specialized agencies and other organizations of the United Nations system. They wish, in particular, to thank Mr. Yasushi Akashi, Under-Secretary-General for Disarmament Affairs, Mr. Sohrab Kheradi, Principal Officer in the Department for Disarmament Affairs who served as Secretary of the group, Ms. Agnes Marcaillou, Political Affairs Officer, who served as Deputy Secretary, and Mrs. Indu Chakravartty, Associate Political Officer, who served as the Assistant Secretary.

I have been requested by the group of qualified experts, as its Chairman, to submit to you, on its behalf, its report, which was unanimously approved.

Please accept, Sir, the assurances of my highest consideration.

(Signed) Esmat A. EZZ
Chairman of the group of qualified experts
established in pursuance of
General Assembly resolution 42/37 C

I. ORGANIZATION OF WORK AND SUMMARY OF PROCEEDINGS

1. The group of qualified experts established in pursuance of General Assembly resolution 42/37 C of 30 November 1987 was formed pursuant to paragraph 5 of the resolution,

2. At the outset of its first session, which was held from 15 to 19 August 1988 at Geneva, the group took note of its mandate as contained in paragraph 5 of resolution 42/37 C, in which the Assembly requested the Secretary-General, with the assistance of qualified experts provided by interested Member States, to develop further technical guidelines and procedures available to him for the timely and efficient investigation of such reports of possible use of chemical and bacteriological (biological) or toxin weapons, that may constitute a violation of the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, 1/ or other relevant rules of customary international law. In considering its mandate, as stipulated in paragraph 5, the group was of the opinion that it would also be useful to take due account of paragraphs 4, 6, 7 and 8 of the resolution.

3. The group decided that, while the procedures devised earlier in the Secretary-General's report (A/39/488) would provide a basis for its work, it was agreed that a new structure for its report would more adequately accommodate the various developments that had taken place in this field since the submission of the previous report,

4. As noted in a letter dated 19 August 1988 from the Chairman of the group to the Secretary-General, the group was not in a position to submit its final report at that session although a very substantial amount of work was accomplished. Accordingly, the group requested that due consideration be given by the General Assembly at its forty-third session to the possibility of extending the time period for completion of the work involved,

5. Pursuant to General Assembly resolution 43/74 A of 7 December 1988, in which the Assembly requested the Secretary-General to continue his efforts as described in paragraph 2 above, the group was reconvened and held two sessions at Geneva from 6 to 17 February and 31 July to 11 August 1989.

6. At its first session the group was apprised of the interest expressed by a number of Member States to contribute informally to its work. In this respect, the group decided that, given the severe time constraints, it would only be in a position to review the papers made available to it.

7. However, from the beginning of its work the group had recognised that, given the deep interest in the subject of chemical and bacteriological (biological) and toxin weapons on the part of so many, a small group of experts such as this one must find the means to accommodate the concerns and expertise of the wider international community while preserving the focus and commitment that had developed in the group toward6 the completion of its work. This was successfully

accomplished, in the view of the experts, in two steps. First, at its second and third sessions, the group of experts held a total of three informal meetings open to attendance by representatives of any interested Member State to permit those representatives to express their views informally regarding procedures for investiqation. The session6 .are well attended, many thoughtful and well considered views were expreg.ed, and a number of recommendations w.re offered. The group felt reassured that no' substantial issue was raised in those sessions that had not already been fully considered and debated within .he group, and benefited from the recommendations that were taken into account during the remainder of its work.

8. The second step taken by the group to enable it to take fullest possible account of the concerns and expertise of Member States not represented in the group of experts was to receive, by virtue of appropriate modalities, comments and recommendations from interested Member States on the group's informal joint working paper, which was prepared during its second session, These comments and recommendations proved to be extremely valuable in the final preparation of the guidelines and procedures for the timely and efficient investigation of reports of the possible use of chemical and bacteriological (biological) or toxin weapons.

9. In the preparation of these guideline6 and procedures, the primary subject of debate among all parties concerned was how to ensure the timely acquisition of information relating to the alleged use of chemical and bacteriological (biological) or toxin weapons. It became apparent that inextricably related to the issue of timeliness were two questions: first, how to identify or define conditions in such a w.. as to make an investigation at the site of an alleged incident an obligatory consequence of those conditions. The second issue related to timeliness was how to achieve the strongest possible commitment by Member States to receive an investigation pursuant to relevant resolutions, in strict observance of their sovereign rights.

10. The group endor sed the concepts that, first, an investigation should be carried out at the site of an alleged use of chemical and bacteriological (biological) or toxin weapons whenever eva' ation of the information provided by the Member State indicates that an invest. .ion is warranted and, second, if asked, any Member State should permit such an investigation on it6 territory. However, mindful of its role and mandate, the group recognized that acceptance of and adherence to these guidelines and procedure6 rests at the discretion of the Secretary-General and of the affected Member States, and the group therefore formulated the guidelines and procedures in every instance as recommendation6 only.

11. The group of qualified experts was of the opinion that the Secretary-General, in the course of any exchange of letters with States involved in the conduct of an investigation, should take into account, inter alia, the relevant guidelines and procedures set out in this report, it being understood that provisions specifying the concrete arrangements intended to be agreed upon with the Government concerned could also be taken into consideration.

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12. In the course of its work, the group took into account, inter alia, the discussions that had taken place on the subject at the forty-second and forty-third sessions of the General Assembly and the fifteenth special session of the General Assembly, the third special session devoted to disarmament, as well as in other forums. Furthermore, the group addressed on numerous occasions the provisions contained in the draft text of a chemical weapons convention now being negotiated at the Conference on Disarmament.

13. It also had before it documentation and literature relevant to its work. In the course of the deliberations of the group, additional sources of information relevant to its work were brought to the attention of the group.

14. In addition, the group was cognizant of the note verbale of the Secretary-General to all Member States, dated 21 March 1988, inter alia, drawing their attention to paragraph 6 of General Assembly resolution 42/37 C requesting the names of qualified experts and laboratories, as well as the replies received.

15. During the session, the group also took advantage of the opportunity provided to conduct preliminary consultations with certain relevant international organizations with a view to obtaining information useful for its work.

II. GUIDELINES AND PROCEDURES FOR THE TIMELY AND EFFICIENT INVESTIGATION OF REPORTS OF THE POSSIBLE USE OF CHEMICAL AND BACTERIOLOGICAL (BIOLOGICAL) OR TOXIN WEAPONS

A. Introduction and general principles

16. The Secretary-General should carry out promptly investigations in response to reports that may be brought to his attention by any Member State concerning the possible use of chemical and bacteriological (biological) or toxin (CBT) weapons that may constitute a violation of the 1925 Geneva Protocol or other relevant rules of customary international law in order to ascertain the facts of the matter, and report promptly the results of any such investigation to all Member States.

17. Having reaffirmed in the Final Declaration (A/44/88, annex) of the Paris Conference of the States Parties to the 1925 Geneva Protocol and other Interested States on the Prohibition of Chemical Weapons "their full support for the Secretary-General in carrying out his responsibilities for investigations in the event of alleged violations of the Geneva Protocol" (ibid., para. 5), all Member States should co-operate with the Secretary-General with a view to taking measures to strengthen the authority of the 1925 Geneva Protocol and support the conclusion of a convention on chemical weapons.

18. As early as the convention on prohibition of chemical weapons enters into force, the Secretary-General should co-operate, as appropriate, with the organs provided for in the convention, in carrying out investigations in accordance with these guidelines and procedures and the relevant provisions of the chemical weapons convention.

19. The Secretary-General, in considering a report for and in conducting an investigation, should take into account the procedures and modalities described below. Furthermore, he should have at his disposal the services of expert consultants whose functions are defined below.

20. In considering the information provided by a Member State concerning the possible use of CBT weapons, the Secretary-General should determine (if necessary, in consultation with expert consultants) how to conduct further investigation.

21. The Secretary-General should, if necessary, carry out consultations with any Member State on questions related to the possible use of CBT weapons and on questions related to the implementation of the objectives of resolution 42/37 C.

22. All Member States and relevant international organisations should provide assistance to the Secretary-General, at his request, as necessary to facilitate preparation for and conduct of any investigations.

23. All Member States, if requested by the Secretary-General, should grant rapid access to the team of qualified experts sent on his behalf to the site of the alleged violation of the 1925 Geneva Protocol and other relevant rules of customary international law. Member States should be called upon not to refuse a request of the Secretary-General to conduct such an investigation.

24. Any investigation at the site of an alleged violation should be carried out rapidly and in the least intrusive manner possible. The view of the team of qualified experts should be taken into account in that respect with regard to the accomplishment of the task of the investigation.

B. Submission of a report of alleged use; assessment by the Secretary-General; decision of the Secretary-General

1. Formulation

25. Any Member State, possessing information on possible use of CBT weapons, may, pursuant to resolution 42/37 C, bring a report of alleged use to the Secretary-General's attention to enable him to carry out an investigation, as warranted.

26. Such a report should be accompanied by relevant information supporting its validity.

27. In order to assist all Member States in formulating a report of alleged use and with the idea of making easier its assessment by the Secretary-General, the description of the main information to be provided, as available, is given in appendix I.

2. Assessment by the Secretary-General

28. Criteria that should guide the Secretary-General in taking a decision in response to a report of possible use of CBT weapons may include, in conformity with appendix I, the degree of sufficiency, conclusiveness and credibility of the information contained in the report.

29. In considering each report concerning the possible use of CBT weapons, the Secretary-General should determine how to proceed, either independently or in consultation with expert consultants. The expert consultants should assist the Secretary-General in assessing all the relevant legal, scientific, military, logistical, and other questions related to a specific report of alleged use.

30. In the event the information provided by the Member State concerning the possible use of CBT weapons is insufficient or ambiguous, the Secretary-General should seek clarification from the Member State or States raporting the information. Clarifications should be submitted within the shortest possible period (24 to 36 hours),

31. The Secretary-General should not be precluded from using additional information that may be brought to his attention by any other Member State on any aspect of possible use that would facilitate the conduct of the investigation.

3. Decision of the Secretary-General

32. Initiation of an investigation on site:

(a) The Secretary-General should undertake to conduct an investigation at the site of the alleged incident, according to the procedures elaborated in paragraphs 69 to 93 below whenever evaluation of the information provided to him indicates that such an investigation is warranted;

(b) The decision to conduct an investigation at the site of the incident should be taken as rapidly as possible, no later than 24 hours after the receipt of the report, if possible;

(c) The Secretary-General should begin immediately to secure access for the team of qualified experts by the Member State on whose territory the investigation is to be carried out. Concurrently, a team of qualified experts should be dispatched to the site of the alleged incident as quickly as possible, no later than 48 hours after the decision has been taken to carry out such an investigation, if possible.

33. Other circumstances:

(a) It is expected that only in extraordinary circumstances would the Secretary-General not carry out an investigation at the site of the alleged incident if evaluation of the information provided to him indicated that an invectiqation was warranted;

(b) In light of the gravity associated with the legitimate concerns of Member States regarding the possible use of chemical, bacter logical or toxin weapons, any decision by the Secretary-General not to dispatcl a team of qualified experts to the site of the alleged incident warrants particularly timely notification of the Member State providing the report of alleged use, and in some instances all Member States, of his decision and the basis for that decision. Such circumstances are described in paragraphs 33 (c) and (d). In addition, alternative investigative procedures, elaborated in paragraph 33 (f) may be warranted in such circumstances;

(c) If the attempts to evaluate the information and clarifications provided by the Member State or States have not redressed any uncertain issues, as determined by the Secretary-General in consultation with expert consultants, the Secretary-General may conclude that further investigation is not warranted, The Secretary-General should so inform the Member State or States providing the report of alleged use promptly upon reaching his decision. The report of the Secretary-General to the Member State or States should specify the basis for his decision not to dispatch a team of qualified experts to the site of the alleged use ;

(d) If the Secretary-General, in consultation with the expert consultants, determines that technical factors, such as the passage of time, would preclude an objective attempt to ascertain the facts of the allegation, he may conclude that an investigation is not warranted. In this case, the Secretary-General should RO inform the Member State or States providing the report of alleged use and all other Member States promptly upon reaching his decision. The report of the Secretary-General should include an evaluation of the report of alleged use, and should specify the basis for the decision not to dispatch a team of qualified experts to the site of the alleged use;

(e) If the Secretary-General is unable to ensure safe access of the team of qualified experts to the site of an alleged incident, when technical evaluation of the information provided to him indicates that an investigation is warranted, the Secretary-General should so inform the Member State or States providing the report of alleged use and all other Member States promptly upon reaching his decision. The report of the Secretary-General should include an evaluation of the report of alleged use, and should specify the basis for the decision not to dispatch a team of qualified experts to the site of the alleged use;

(f) In this case, the Secretary-General should determine whether evidence may be available in any bordering or neighboring country, or countries that would permit access to the team, and if so, initiate an investigation in the neighbouring region, according to the procedures elaborated in paragraphs 89 to 93 below;

(g) If it is not possible to dispatch a team either to the site of the alleged use or to any bordering or neighbouring country or countries, or if the Secretary-General determines in consultation with expert consultants that such near-site investigation is unlikely to contribute to an objective investigation of the allegations, the report of the Secretary-General should include an evaluation of the information provided by the Member State in its report of alleged use, or obtained as a result of analysis of any samples that may have been forwarded by the

Member State with its report, it being recognized that such an evaluation is based on information that could not be verified;

(h) If, in any case, it is not possible to dispatch a team to the site, the Secretary-General should continue to follow developments in the area concerned, and should be prepared to take advantage of any opportunity that may subsequently arise to conduct an on-site investigation or an investigation concerning the alleged use, from the territory of a bordering or neighbouring country or countries, if such an investigation holds the prospect of producing additional information, in the opinion of the Secretary-General in consultation with his expert consultant or consultants.

C. Involvement of Member States, expert consultants, qualified experts and laboratories

1. Member States

34. Any Member State may propose to the Secretary-General, on his request, an expert consultant or consultants in order to advise and assist him in a consultative capacity in the various fields when competence is required for the successful preparation of and conduct of an investigation. Functions of expert consultants are elaborated in paragraphs 57 to 63 below. Information to be provided by Member States in proposing such experts is indicated in appendix II.

35. Any Member State may designate qualified expert or experts whose names and qualifications should be placed on the list maintained and periodically updaisd by the Secretary-General, and whose services may be required on short notice in order to facilitate the prompt initiation of any investigation as requested by the Secretary-General. Functions of the qualified experts are elaborated in paragraphs 64 to 75 below, Designation of qualified experts by Member States should include the information set forth in appendix II. Appropriate fields of expertise are described in appendix IV,

36. Member States designating qualified experts should, to the greatest extent possible, make available to those qualified experts the equipment necessary for the investigation, described in appendix III, and should make known to the Secretary-General what of the necessary equipment it would be able to provide.

31. Any Member State may designate laboratories whose names and capabilities should be placed on the list maintained and periodically updated by the Secretary-General, and whose services may be required to test for the presence of CBT agents. Functions of such laboratories are elaborated in paragraphs 76 to 80 below. Appropriate capabilities of the laboratories are indicated in appendix V. Designation of the laboratories by the Member State should include the information contained in appendix VI.

38. Member States should make known to the Secretary-General the quantity and type of equipment for an investigation described in appendix III that it can make available on his behalf to be used by any qualified expert appointed by him for a given investigation in order that the inability of any Member State to fully equip

a qualified expert not constitute a hindrance to the proposal by the Member State of qualified experts, or to the selection by the Secretary-General of qualified experts for any particular investigation.

39. With a view to maintaining the necessary degree of confidentiality and impartiality of the investigation, any Member State which has designated an analytical laboratory should ensure that the personnel of such a laboratory not reveal any of the information coming to their knowledge as a result of the analyses, prior to publication of the final report of the investigation, to anyone other than the persons appointed or designated by the Secretary-General to receive or dispatch such information.

40. Any interested Member State may designate to the Secretary-General relevant specialized training or courses available to qualified experts in support of their possible role on his behalf in carrying out investigations of possible use of CBT agents including exchange of information and expertise, in order to facilitate achievement of a common basis of understanding and operation,

41. Any Member State making a report to the Secretary-General that is related to an alleged use of CBT weapons should formulate the report on the basis of appendix I.

42. Any Member State on whose territory an investigation is requested should be promptly informed of measures to be taken with regard to the arrival of the team of experts on the territory of the State.

43. Any Member State, in agreeing to receive such an investigation at the request of the Secretary-General, should take the necessary preparatory measures to receive the team of qualified experts for the period of time necessary to ensure the timely and efficient investigation of the alleged use of CBT weapons.

44. Any Member State receiving such an investigation should without delay do all that it can do to assure the security of the team of experts and provide transportation for the teem, their equipment, documents and other materials (required for their investigation) from their point of arrival to the location or locations of the investigation and back.

45. Member States should permit the unhindered passage across their frontier, without customs inspection, of the experts' equipment, materials, samples and gear.

46. Any Member State receiving an investigation should accord the qualified experts unrestricted access to their equipment required for the purposes of the investigation,

47. Member States should be prepared to provide as available appropriate medical assistance and services as necessary to the team of experts.

48. The Member State receiving the team of qualified experts may appoint an observer to accompany the team during its stay on that State's territory, provided that the performance of the team's functions is not delayed or disrupted.

49. The Member State receiving the team of qualified experts should provide all information necessary ta permit the team to finalize their work programme and to facilitate agreement on the operational details associated with carrying out that work programme,

50. The Member State receiving the team of qualified experts should provide, if possible, interpretation and translation services of an interpreter, if such services are not otherwise available to the investigating team.

51. The Member State should provide a secure work area (laboratory installation etc.) at the request of the team of experts in order to permit them to carry out activities necessary for the investigation without jeopardizing their health and safety, and without comprcmising their freedom of action and judgement.

52. The Member State *receiving* an investigation should do its utmost to respond to any request made by the team of experts relating to general supplies, equipment and analytical laboratories required for the performance of their tasks.

53. The Member State receiving an investigation should ensure that its representatives and nationals must refrain from seeking any demonstration or statement of a political or propaganda nature from the team's experts.

54. The Member State on whose territory the CBT attack is alleged to have taken place should identify the victims and should determine where they are hospitalized. The Member State should allow access to such victims by the team of experts for clinical examination, consultation of medical files and discussions with medical personnel concerned.

55. Any Member State receiving an investigation should permit and facilitate the collection, removal and transport of any and all samples required by the team of qualified experts for analysis.

56. Any Member State on whose territory an investigation is being carried out should be entitled to receive a duplicate of any samples taken by the team of experts for the purposes of analysis during the investigation or in an outside laboratory so long as provision of such samples does not interfere with the ability of the experts to complete a thorough and objective investigation.

2. Expert consultants

57. The expert consultants are high-level specialists, recognised in their particular fields of expertise, chosen by the Secretary-General on the basis Of their personal abilities in order to advise and assist him in a consultative capacity in the various fields where competence is required for the successful preparation for and conduct of investigation.

58. The axpert consultants may be chosen by the Secretary-General from among experts proposed by Member State6 for that purpose. Their areas of competence should be sufficiently broad to enable them to advise the Secretary-General in the

relevant legal, scientific, military, logistical and other questions related to alleged use. The functions of the expert consultanta are defined below.

59. At the request of the Secretary-Qaneral and under his responsibility, the tusks to be performed by the expert consultants will be of two kinds: to evaluate any report made by a Member State *concerning* the alleged use of CBT weapons and to assist the Secretary-Qeneral in conducting the investigation; and to develop continuously the measures required *for* the smooth conduct of the investigations.

60. The expert consultants may perform other tasks the Secretary-Qeneral may deem necessary concerning- allegations of use of CRT weapons.

61. According to the magnitude. duration and nature of the required services, the expert consultants may be appointed either individually or as a group, on the merit of their qualifications, experience and abilities.

62. The expert consultants should be available for expeditious consultation with the Secretary-Qeneral in order to take account of the often urgent nature of the situation in the event of a report of alleged use.

63. The Secretary-General should periodically convene a meeting of his appointed expert consultants in order to review the status of the various tasks undertaken.

3. Qualified experts

64. The abilities and expertise of the qualified experts may be evaluated by the Secretary-Qeneral with the assistance of the expert consultants, at his request, in order to assure effective participation of the qualified experts in any team of investigation and to decide the function that the qualified expert can perform within a particular team. Furthermore, the qualified experts may also be called upon to participate in specialized training either individually or as a team to ensure the effectiveness of the teams of investigation.

65. The qualified experts selected by the Secretary-Qeneral for a specific investigation should, inter alia, enjoy the privileges and immunities granted to experts *on* mission *for* the United Nations, under article VI of the Convention on the Privileges and Immunities of the United Nations of 13 February 1946. 2/

66. The qualified experts should undertake, without. prejudice to their privileges and immunities, to respect the laws and regulations of any country on whose territory an investigation is being carried out. They should refrain from carrying out any activity that exceeds the objectives of the investigation, unless the Member State requests them explicitly to carry out such activity, providing they are authorized to do so by the Secretary-General and it does not interfere with their other obligations.

67. On their arrival on the territory *of* a country, the qualified experts should finalise, as far as possible, their work programme and seek agreement on the operational details associated with carrying out that work programme with authorities from the Member State.

69. The team of qualified experts should not be prevented from moving freely, as necessary and feasible, exclusively for the purposes of the investigation. Furthermore, the team of qualified experts should not be precluded from interviewing any individual that it deems necessary for the objective conduct of the investigation.

69. The qualified experts should have unrestricted use of their equipment required for the purposes of the investigation,

70. The qualified experts should be provided by the United Nations with the funds, means and resources required to maintain their freedom of action and judgement.

71. The qualified experts may consult with other recognised experts regarding any technical issue that may arise in the course of the investigation, so long as such consultation is authorimed by the Secretary-General, is deemed necessary by the team and does not jeopardise the confidentiality of any information obtained relating to the investigation,

72. The team of qualified experts should, as soon as possible, provide to the Secretary-General any estimate of the number of possible CBT victims that it may develop in the course of its investigation, as well as a description of the types of injuries, so that he may facilitate, as appropriate, provision of aid to the affected State or States by the international community, or so that he may take other steps, in consultation with all Member States involved and consistent with his mandate, which might help to prevent further loss of life and suffering caused by use of such weapons.

73. The qualified experts may observe, if possible, and take part, as appropriate, in the analysis in the designated laboratories of samples they have gathered, as well as acquaint themselves with the 'results of the analyses for use in drawing up the report of tho team for the Secretary-General,

74. Each qualified expert may set out his personal view in the final report of the Investigation.

75. The qualified experts should not reveal, prior to publication of the final report, without direct permission from the Secretary-General, any information obtained during the investigation.

4. Analytical laboratories

76. Analytical laboratories, designated by the Member States to the Secretary-General, may be called upon to carry out the following tasks: identification of CBT agents, their characteristic impurities, and degradation products, and munitions which may be related to the possible use of CBT weapons; validation of the preliminary analyses; elucidation of the nature of unknown CBT agents: and timely preparation and transmission of a report of the details and results of their analyses to the Secretary-General,

77. The designated laboratories may be called upon by the Secretary-General to participate in interlaboratory calibration studies so as to establish the validity and accuracy of their analytical methods in order to ensure the best expertise necessary in the analysis of samples received from the site of the alleged use.

78. The laboratories may present methodologies for sample collection, transport or analysis they may have developed that may represent an improved capability, and should forward all pertinent documentation to the Secretary-General.

79. The laboratories may, if the qualified experts return to the site of the alleged incident for a follow-up investigation, ask that new types of samples be taken.

80. The laboratories should make note in their report of any information received in the course of the analysis that might permit the identification of the origin of any CBT agents or munitions found in the samples from the investigation.

D. Activities of the Secretary-General

81. The Secretary-General has the central role to play in the whole process of the investigation, which he should begin by taking Standing preparatory measures in co-operation with the Member States, and with the assistance of his appointed expert consultants. Then, acting according to the requests of the General Assembly, and keeping in mind the resolutions of the Security Council, the Secretary-General may decide to launch an investigation and to secure the co-operation of those involved. Of particular importance is the co-operation of the Member States, as reaffirmed in the Final Declaration of the Conference of the States Parties to the 1925 Geneva Protocol and other Interested States on the Prohibition of Chemical Weapons.

82. In addition, the Secretary-General should study the consequences of the implementation of these guidelines and procedures with regard to the involvement of the United Nations Secretariat and should accordingly identify, taking into account the high level of responsibilities and functions involved, an appropriate focal point with relevant background within the Secretariat to facilitate the administrative and substantive support and co-ordination for the smooth functioning of the investigative mechanism, including the conduct of on-site investigations.

1. Standing preparatory measures for investigations

83. The Secretary-General should report periodically to Member States on the status of and the degree of completion of standing preparatory measures.

84. Expert consultants:

(a) The Secretary-General should appoint expert consultants on the basis of their personal qualifications, from those proposed by Member States, to assist him on an ad hoc and consultative basis;

(b) The Secretary-General should assure himself of the availability of the expert consultants in the event of a request for investigation as well as the availability of expeditious communication with each expert consultant;

(c) The Secretary-General should appoint expert consultants in order to assist him in:

(i) Periodically updating the fields of expertise of qualified experts and of laboratory specializations;

(ii) Evaluating the qualifications of the qualified experts proposed by Member States;

(iii) Organizing the composition of teams of qualified experts, as well as their training for investigations;

(iv) Preparing programmes for the calibration of equipment made available to the Secretary-General by Member States to be used by the qualified experts in the conduct of an investigation or to be used in training of the qualified experts;

(v) Evaluating the qualifications of the laboratories by organising and monitoring interlaboratory calibration studies, which also serve to validate, as necessary, the analytical methods of those laboratories;

(vi) Periodically updating the procedures and methods for determining whether CBT weapons use has occurred.

85. Qualified experts:

(a) The Secretary-General should maintain and periodically update the lists of qualified experts provided by Member States;

(b) The Secretary-General should make arrangements as necessary with the Member States that have submitted names of qualified experts to permit him to contact the qualified experts directly so that their services may be made available on short notice;

(c) The Secretary-General should identify core teams of qualified experts possessing a distribution of the specialties required for successful conduct of an investigation, in order to facilitate training, exchange of information and expertise among qualified experts, as well as timely selection of qualified experts for a particular investigation;

(d) The Secretary-General should maintain and periodically update a list of specialized training or courses offered by Member States to qualified experts relevant to their role as possible investigators of CBT weapons use.

06. Laboratories:

(a) The Secretary-General should maintain and periodically update the lists of analytical laboratories provided by Member States)

(b) The Secretary-General should make arrangements as necessary with the Member States that havt submitted names of analytical laboratories to permit the Secretary-General to contact the laboratories directly or make whatever other provisions might be necessary so that their services may be made available on short notice;

(c) The Secretary-General should, together with the Member States that have designated analytical laboratories, make all arrangements possible for passage of samples without inspection or any other form of interference by customs or police authorities of those States:

(d) The Secretary-General, with the assistance of the consultant experts, should carry out interlaboratory calibration in order to evaluate the validity and accuracy of the analytical methods employed by the laboratories designated by Member States;

(e) The interlaboratory calibration study should be carried out with a view to, first, demonstrating competence on the part of the individual designated laboratories for the detection and identification of known CBT agents; second, evaluating the capability of the individual laboratories to detect the presence of other toxic substances unknown to the laboratory in biomedical and environmental samples; and third, demonstrating the level of competence represented by the laboratories collectively for the analysis of all types of samples that may require analysis in the course of the investigation!

(f) Based on the results of the interlaboratory calibration study, the expert consultants should develop an assessment of the competence of the individual designated laboratories for the detection and identification of known and unknown CBT agents, as well as of the laboratories collectively to analyse with an acceptable level of competence the full spectrum of samples that may be required;

(g) At the request of Member States having designated analytical laboratories, the expert consultants should provide, through the Secretary-General, a summary of their conclusions regardinq the degree of competence of those laboratories in the event the Member State has reason to believe an error may have been made in the study or in the assessment;

(h) The assessment of the study results of the overall interlaboratory calibration by the expert consultants is for the sole purpose of maximizing the effectiveness of any investigation that may be required by the Secretary-General, and should not be revealed by the expert consultants to anyone but him.

87. Equipment :

(a) Equipment that should be available to the team of qualified experts is described in appendix III. The equipment described is illustrative in nature; depending on the nature of the investigation, additional or unique equipment may be required not reflected in appendix III ;

(b) The Secretary-General, together with the Member States putting at his disposal equipment for investigations, should make the arrangements necessary, as feasible, so that the equipment can be made available at any time, within 48 hours or' a request by the Secretary-General, if possible. These arrangement6 should also ensure that the Member States may, with minimum delay, either make the equipment available directly to any qualified expert as specified by the Secretary-General for a given investigation or have it sent to a point to be determined by him for the investigation;

(c) The Secretary-General should assure himself that all the equipment necessary for the conduct of investigation by a team is contained in the collection of equipment to be provided by Member States on his behalf for the investigation;

(d) If the Secretary-General is unable to assure himself that any or all equipment necessary for the conduct of an investigation by a team can be provided from the equipment made available by Member States in the time required, he should make whatever alternative arrangements may be available to him to ensure that the team has available all the equipment it needs for the investigation.

88, Other measures :

(a) Documentation!

(i) The Secretary-General, with a view to updating periodically the administrative and technical aspects of these procedures, should take measures necessary so that Member States, consultant experts, qualified expert6 and designated laboratories send to him on a regular basis such elements of information as they can provide to this end. The Secretary-General should also collect and methodically classify the collection of documentation concerning CBT weapons, means of protection, and treatment against their use;

(ii) All the information thus assembled and classified should be made available, on their request, to all Member States, as well as to the expert consultants, qualified experts, and designated laboratories;

(b) Participation of international organiaations: the Secretary-General should moke necessary arrangements with relevant international organizations to obtain from them: (i) information contained in subparagraph (a) above; (ii) information on the status of health and sanitation of populations existing in the area of the investigations; and (iii) appropriate assistance and co-operation of their representatives ir. the Member State where the team of qualified experts may be sent by him to investigate the alleged use of CBT weapons.

2. Launching an investigation

89. Having decided to proceed with an on-site investigation, the Secretary-General should proceed according to the procedures described below.

90. Relations with the Member State or State6 concerned!

(a) The Secretary-General should contact the Member State receiving the investigation and any other Member State through which the team may have to transit or in which the team may carry out investigative activities in order to make arrangement6 for receiving the team, assuring its security, freedom of action and judgment, and providing logistic support, without prejudice to timely and efficient investigation!

(b) Security arrangements for the team and for their equipment and the samples collected by them should be agreed upon between the United Nations and the concerned Member States, without prejudice to timely and efficient investigation, and subsequently documented appropriately in an exchange of letters. The same procedure should be followed for logistic support to be provided to the team of expert6 by those States for the purpose of the investigationr

(c) The Secretary-General should request that the Member State receiving en investigation:

(i) Secure and preserve the sits where an attack is alleged to have taken place, as far as possible consistent with prudent measures taken to provide protection of the surrounding population and environment)

(ii) Locate, identify, if possible, and, a6 appropriate, preservo in situ any physical samples, such as samples of the suspected CBT agent, remants of munitions, contaminated soil, vegetation or water, contaminated clothes or other articles;

(iii) Preserve any biomedical samples obtained from casualties, such as blood, urine, vomitus and stools as well as post-mortem samples;

(iv) Locate casualties and where they are hospitalised so that the investigating team may examine them and their medical record,;, and meet with attending medical personnel;

(v) Identify witnesses to the attack and, when possible, arrange for access to them upon request by the qualified experts;

(d) Modalities for the transportation of samples as well as equipment necessary for the investigation, including passage without inspection or any other form of interference by customs or police authorities, would be agreed upon between the United Nations and the States involved, including the State of origin, State of transit and State of destination and subsequently documented appropriately in an exchange of letters;

(e) If the Secretary-Qeneral is unable to secure transport for any of the qualified experts, their equipment or samples from the means of transportation made available to him by Member States, he should make whatever alternative transportation arrangements as may be necessary and feasible in order to ensure a timely and efficient investigation.

91. Expert consultantsa the Secretary-General may request the expert consultants to assist him in order to:

(a) Provide consultation and assistance either to the Secretary-Qeneral or to the qualified experts on all relevant, legal, scientific, military, logistical and other questions that may arise in the course of the investigation;

(b) Recommend qualified experts and laboratories for the investigation;

(c) Recommend equipment for the investigation, where necessary in consultation with the qualified experts;

(d) Review the report prepared for him by the qualified experts in which the information gathered during the field investigation and the results of the laboratory analyses are described and evaluated, with a view to providing to him their conclusions regarding the possible use of CBT *weapons.*

92. Selection and convening of qualified experts:

(a) The Secretary-General should select a core team of qualified experts to carry out the investigation. The constitution of the core teem selected for the investigation may be augmented or modified as required by the availability of the qualified experts and by the circumstances surrounding the investigation. In addition, the team should be accompanied by the necessary substantive and administrative staff, security personnel, interpreters or others, as deemed necessary by the Secretary-General and a6 appointed by him. The Secretary-General should select and assemble the team to carry out the investigation so as to take maximum advantage of training completed by the qualified experts, either individually or as a team;

(b) The qualified experts should be appointed directly by the Secretary-General for participation in an investigation and notified according to the agreement with the Member State that has designated the expert;

(c) Immediately upon their appointement by the Secretary-General the qualified experts should be provided with the necessary information that has been made available to the Secretary-General relating to the possible use of CBT weapons;

(d) The Secretary-General should arrange for the qualified experts and their equipment to be transported and the team assembled at a point to be determined by him and should inform the team of its objective6 and tasks for the investigation;

(e) Once convened, the qualified experts should evaluate the information regarding the investigation provided by the Secretary-General. Based on this evaluation, the team should develop a tentative work programme to be finalised by them on the basis of their discussions with local authorities at the site of the investigation.

93. Tentative notification of analytical laboratories:

(a) The Secretary-General should notify laboratories whose services may, based on information available at the time, be required to perform analyses of samples obtained in the course of the investigation;

(b) The laboratories should be notified by the Secretary-General *according* to the agreement with the Member Stats in which the laboratory is located, regarding their possible participation in an investigation.

E . Technical procedures for the investigation

1. On-site or near-site investigation

94. At the earliest opportunity, the team should examine the site or sites of the alleged use of CBT weapons in an attempt to collect as many facts as possible and to assess the nature and extent of any attack and its consequences, which may affect the subsequent investigation and analysis.

95. Arrangements for assistance and co-operationa

(a) Once the team enters the country on whose territory the investigation is to be carried out, it should meet with local authorities to:

(i) Receive any information tire local authorities may have regarding the alleged use of CBT weapons;

(ii) Finalise its work programme, regarding in particular the locations to be visited and inspected, victims to be examined, interviews with eye witnesses and others who may have relevant information, such as medical personnel and social workers etc.;

(iii) Review the arrangements made to provide security and logistical support, and interpretation services!

(iv) Assure itself of the availability of a secure *work* area allowing the team, in the vicinity of each location where samples *are* to be taken, to store and test its equipment, to process samples and to perform preliminary analyses if possible;

(b) The team should also meet as necessary with representatives of international organizations present in the country.

96. The allegedly contaminated area!

(a) In order to assure itself that it has arrived at the site of the alleged incident, as described in the report to tha Secretary-General on the subject of the possible use of CBT weapons, the team of qualified experts should have available equipment allowing it to locate the site precisely in order to guarantee in its report the precise geographic co-ordinates of the site of the alleged incident;

(b) The team should examine the site of the attack *in* order to evaluate, if possible, the degree of contamination, to perform in-situ detection and analysis, to collect any biomedical samples or physical evidence directly related to the alleged CBT use, and to examine terrain, *vegetation* and animal life to determine possible effects of the use of CBT weapons,

97. Sampling:

(a) General guidelines to be followed by the team of qualified experts in the collection, processing, preservation and transport of samples are given below. Detailed procedures for collection of physical samples are given in appendix VII, and *for* collection of biomedical sample6 in appendix VIII,

(b) Types of samples;

(i) Samples collected directly by the team of qualified experts, if found to contain CBT agents, would constitute primary evidence relating to an alleged CBT attack, *Those* samples collected by team *members* and for which the team maintains physical custody at all times would be of greatest valuer

(ii) Samples of importance in the investigation include neat agent, munitions, remnants of munitions, environmental samples (air, soil, vegetation, water, *mow* etc.) and biomedical samples from human or animal sources (blood, urine, excreta, tissue etc.);

(iii) *When* possible, when physical or biomedical samples are collected, control samples should also be collected from an uncontaminated area located at a suitable distance from the site of the alleged attack or from a human or animal source believed not 'to have been exposed to the agent;

(c) Sample field processing;

(i) Upon completion of sample collection at the site of the alleged incident, the qualified experts should return to the secure *work* area in order to divide and prepare the samples for transportation to the analytical laboratories;

(ii) The qualified experts should prepare, as possible, three sets of samples collected, in two parts, as follows, One part *of* each set should contain samples that may be contaminated and comparable uncontaminated control samples. This part of the samples set should be identified for the laboratories as possibly contaminated. It is important that the laboratories be unable to distinguish these control samples from the other samples. The other part of each set should contain uncontaminated samples, and should be identified for the laboratory a6 such *for* the purposes *of* allowing the laboratory to carry out background and calibration studies for their equipment and analytical procedures;

(iii) Each sample should be labelled with an identification number from a coding system devised by the team of experts, For each sample, a record must be kept giving a physical description of the sample, the date and place of sampling and other relevant data. For samples obtained from the site of the alleged attack, weather conditions during the time between the attack and sample collection should be noted, as well as any information on decontamination activities. For biomedical samples, any relevant information regarding, for example, medical treatment, mode of exposure (inhalation, skin, ingestion etc.), availability and use of protective measures should be noted;

(iv) Samples that may be contaminated with CBT agents must be packed and sealed in a manner to ensure their safety and the safety of handlers and to guard against contamination of the surrounding environment. After proper packing, samples should be sealed to guard against tampering during transport, Samples should be processed according to the procedures contained in appendices VII and VIII. In any case, the use of other packing materials, containers, etc. from those recommended in appendices VII and VIII should be permitted at the discretion of the team of qualified experts)

(v) In addition to the precautions taken in the general handling of sample6 possibly contaminated with CBT agents, collection, handling and packaging of biomedical samples should bo performed under sterile conditions to the extent possible;

(d) Sample preservation and transport;

(i) In order to preserve the samples with minimum degradation, samples should be chilled or refrigerated whenever possible, but not frozen;

(ii) After proper labelling, packing and sealing, the samples and control samples should be transported as soon as possible to three designated laboratories. Of these, two laboratorios should be requested to carry out immediately the analyses required for the investigation. The third laboratory should be requested to carry out the analyses required for the investigation only if the result6 obtained by the two laboratories are inconclusive or contradictory, or if other circumstances exist or arise which would warrant the analysis;

(iii) If possible, a member of the secretariat or of the team of qualified experts should accompany the samples to guard against mishandling or loss.

98. Interviews with and examination of witnesses and casualties:

(a) In order to collect as many Pacts as possible with respect to the detail6 of the attack and the effects on victims, the team should interview possible victim6 and eye witnesses of the alleged CBT attack using a questionnaire such a6 the model provided in appendix IX;

(b) The team should *examine* individual6 who may have been subjected to an alleged use of CBT weapons for signs and symptoms that could be characteristic of exposure to chemical *or* biological agents. In addition, the team should review the medical record6 of these individuals and interview the attending medical staff in order to establish (i) signs and symptoms on admission, (ii) evolution of the disease, (iii) results of any laboratory analyses conducted and (iv) treatment administered)

(c) The team should, when proper and appropriate, conduct pobt-mortem examination6 of victims of the alleged CBT attack and collect post-mortem samples for further exmination either directly or, in special circumstances, from attending medical personnel,

99. Information *on* the origins of CBT weapons8 if the qualified experts collect any information in the course of their investigation concerning the possible origin of CBT weapon6 used, that information should be include9 in the report of the qualified experts to the Secretary-General.

100. Interviews with representatives of local authorities; the team should interview any representatives of local authorities who may have been directly *or* indirectly involved in the alleged use of CBT weapons, such a6 military personnel, civil defence staff, and social worker6 participating in relief activities following the alleged CBT attack,

2. Laboratory analyses

101. Receipt and recording of samples.

(a) At the laboratories designated to carry out analysis of samples, the sealed sample container or containers will be opened after confirming, in the presence of the member of the secretariat or of the team of qualified experts, that the seals are intact, The laboratory would then give a receipt to the member of the secretariat or member of the team, indicating the number, nature and sample identification number of samples delivered;

(b) Sample processing:

(i) Before each sample is completely opened and the sample removed for processing prior to the analysis, the air space surrounding the sample should be analysed for tht presence of CBT agent6 and related substances:

(ii) The detailed sampling processing technique6 and procedure6 will be dependent on the type of sample, the CBT agents and agent-related compound6 thut are being analysed, and on the type of final analysis that will be employed. Because of the number of variable6 involved in the choice of the most relevant sample processing procedure6 it is not appropriate to define and agree upon inflexible procedure6 beforehand; however, for each investigation and for each sample, the sample handling and processing procedure6 should be recorded in detail and retained for

subsequent independent inspection and assessment if the need arises. The major requirement is to be able to demonstrate that inadvertent or cross-contamination has not occurred and, for this reason, adequate control and blank experiments are recommended1 it is crucial that the techniques and procedure6 should eliminate to the extent possible any false negative or false positive results. The sampling handling, processing and analytical methodology should be included in any laboratory report of an investigation of alleged uset

(c) Analytical identification!

(i) In its selection of techniques, instrument6 and procedures for use in analyses, each laboratory should give priority to those for which competence has been demonstrated in the interlaboratory calibration)

(ii) If the laboratories identify impurities or other substances in any CBT agents detected and identified in the course of their investigation that might serve to identify the origin of the CBT agent, that information should be included in the rsport of the laboratory to the Secretary-General.

F . Drafting and content of the report

102. In order to conclude the investigation, the team of qualified experts should, as early a6 possible, evaluate all the information available to it, including the results of the laboratory analyses, with a view to preparing its final report, The final report prepared by the team for submission to the Secretary-General should include the following:

(a) Information on the composition of the team at various stages in the investigation, included during the preparation of the report;

(b) All relevant data gathered during the investigation;

(c) A description of the investigation process, tracing the various stages of the investigation with special reference to (i) the locations and time of sampling and in situ analyses, (ii) supporting evidence, such as records of interviews, the results of medical examinations and scientific analyses, documents examined by the team, and (iii) locations and dates of deliberation on the report as well as the date of its adoption;

(d) Conclusions proposed jointly by the team of qualified experts, indicating the extent to which the alleged events have been substantiated and possibly assessing the probability of their having taken place;

(e) Individual opinions by a member or member6 of the team of qualified experts dissenting from the majority or differing on any of the points listed above should also be recorded in the report.

G. Review of procedures

103. The Secretary-General should periodically review with the assistance of his appointed expert consultants, bearing in mind modifications proposed by Member States, these guidelines and procedures and revise them as necessary for submission to the General Assembly, upon its request.

104, The appendices associated with these guidelines and procedures should be periodically updated by the Secretary-General, with the assistance of the expert consultants, and, upon his approval, transmitted to the Member States.

Notes

1/ League of Nations, Treaty Series, vol. XCIV (1929), No. 2138.

2/ General Assembly resolution 22 A (I).

APPENDIX I

Types of information to be provided as available by a Member State to the Secretary-General in reporting the possible use of chemical, bacteriological (biological) or toxin weapons

1. Identification of the lo .cion

   (a) location name

   (b) geographic co-ordinates

   (c) in relation to another known location (by direction and distance)

2. Characteristics of the site(s)

   (a) military (type)

   (b) civil (city, rural area, town, buildings affected)

   (c) nature of the terrain (relief, vegetation)

   (d) accessibility of the site

3. Meteorological condition6

4. Types of weapons used

   (a) aerial bombardment

   (b) rockets

   (c) artillery

   (d) other6

5. Extent of the weapon6 used

   (a) surface(s) affected

   (b) number and duration of weapons used

6. Characteristics of the possible CBT acent

   (a) consistency

   (b) preliminary identification

/..

(c) type and persistency of contamination

(d) contamination of equipment and building6

7. Effects *on* humans

(a) estimated number of fatalities

(b) number of hospitalized victims

(c) other victims

(d) signs and symptoms

(i) at the time of the attack

(ii) delayed onset

8. Effect6 on animals

(a) signs and symptoms

9. Effect6 on vegetation

(a) signs of contamination

10. Samples

(a) types of samples identified in situ, including any unexploded munitions or remnants of munitions

(b) type6 of samples analysed

(c) results of available analyses

(d) tykes of samples accompanying the report

11. Tentative conclusion regarding the attack

12. Request for medical assistance, and the nature of such assistance

13. Request for technical assistance (detection, decontamination etc.)

14. Indication of the equipment, installations and assistance available for a team of investigator6

APPENDIX II

Information to be provided by Member States either in proposing expert consultants or in designating qualified experts

1. Name of expert.
2. Fields of expertise.
3. Current position.
4. Mailing address : Officer and Home :
5. Telephone numbers, telex, telecopy or telefax.
6. Educational background.
7. Relevant experience, particularly in the area of field investigations.
8. Language proficiency.
9. Citizenship.
10. Availability of services on short notice; availability for extended periods of time.
11. Material or equipment which could be brought by qualified experts as needed fsr the investigation.

APPENDIX III

Equipment for investigation

1. Protective equipment

Gloves, protective clothing, gas masks, boots.

If circumstances warrant, self-contained breathing apparatus.

Decontamination equipment and material.

2. CBT agent detection equipment

3. General -

Pressure sensitive paper labels.

Pressure sensitive adhesive tape,

Waterproof marking pen.

Forceps (dressing for solid handle),

Micro spatula with teflon ends,

Spoon-type spatula with teflon ends,

Sample bottle, 6 oz. teflon type.

Eye dropper with rubber bulb.

Insulated bags, mylar or equivalent.

Sep-Pak C18.

Hypodermic syringe, 50 or 60 ml.

PFA tubing.

Tenax tubes.

Piglettes for Tenax tubes.

Surgical prep razor.

Pad, chemical cooling.

Anti-seizing tape.

Personal air sampler (PAS 1,000 or **equivalent).**

Methanol.

Distilled water.

Waterproof matches.

4. Medical sampling kit

Urine specimen cups.

Red-top blood tubes,

Insulated bags, mylar or equivalent.

Pressure sensitive paper labels.

Pressure sensitive adhesive tape.

Hypodermic syringe, 50 ml.

16 gauge needles

Waterproof marking pens,

Surgical prep razor.

Forceps.

Pad, chemical cooling.

Insulated chest.

5. Medical supplies for members of the team

Vaccines, antidotes, first aid supplies and medicines needed for the protection of the team.

6. Documentation

Blank **sample** documentation forms.

Blank **interview** forms.

Courier receipts.

7. Survey and locational aids

8. Photographic, video- and sound-recording equipment, necessary accessories, and individual short-wave radio communications equipment.

APPENDIX IV

List of areas of expertise for aualified experts

The following list describes the principal areas in which the Member States could designate qualified experts who have, where possible, acquired working experience in the field. In their fields of competence, these experts should be familiar with the effects of CBT weapons and should be skilled at sample taking and preparation. They should also be able to conduct appropriate interviews.

1. Methodologies of in situ detection and analysis of CBT agents.

2. Evaluation of the effects of CBT weapons on humans, and any correlation between the effects and the identification of the types of CBT agent concerned.

3. Evaluation of the effects of other types of weapons on humans.

4. Evaluation of the effects of CBT weapons on animals, and any correlation between the effects and the identification of the types of agent concerned.

5. Evaluation of the effects of CBT weapons on plants.

6. Application of methods of diagnosing infectious diseases, if possible rapidly.

7. Conduct of autopsies and post-mortem sample-taking.

8. Determination of local medical and health conditions (with knowledge of conditions preceding the alleged use of CBT weapons).

9. Determination of local ecological conditions (including microbiological aspects).

10. Epidemiological evaluation of damage caused by CBT weapons and other types of weapon.

11. Evaluation of the design and military use of CBT means of warfare.

12. Evaluation of the design and military use of non-CBT means of warfare.

APPENDIX V

List of laboratory specializations

The designated laboratories should be capable of conducting the following analyses on all the samples relevant to an investigation.

1. Identification, in all the types of sample, of known chemical warfare agents, as wall as their impurities and their degradation productions (and evaluation of quantities),

2. Identification and elucidation, in all the types of sample, of the structure of unknown toxic agents, including those present in trace quantities (and evaluation of quanti ties) ,

3. Identification, in all the types of sample, of biological warfare agents (bacteria, viruses, others) and/or toxins, known and unknown,

4. Toxicological, pharmacological, epidemiological and ecological evaluation of chemical warfare agents.

5. Evaluation of the effects of biological warfare agents and toxins, including epidemiological and ecological evaluation.

6. Pathological and biochiemical examination of organs and tissue taken from victims of CBT weapons, and where possible identification of the agent concerned.

7. Pathological and biochemical examination of organs and tissue taken from animals affected by CBT weapons, and where possible identification of the agent concerned.

8. Examination of plant tissue affected by CBT weapons, and where possible identification of the agent concerned.

9. Examination and evaluation of munitions and fragments of munitions, including all their technical specifications! analysis of explosives.

10. Research on and development of antidotes, medications, anti-infectious products, decontamination and disinfection products suitable for CBT agents.

APPENDIX VI

Information to be provided by Member States in designating analytical laboratories

1. Name of laboratory.
2. Persons responsible for receipt of samples.
3. Mailing address.
4. Telephone number(s).
5. Field(s) of expertise.
6. General nature of the leboratory.
7. Specific facilities and equipment.
8. Relevant experience.
9. Specification of any particular requirements for preparation of samples.
10. Specification of any particular requirements with respect to customs or other inspections for import of samples for analysis.
11. Specification of fees and responsibilities for services carried out on behalf of the Secretary-General,

APPENDIX VII

Sampling procedures for physical samples

1. Vapour samples

Vapour samples may be subjected to chromatographic as well as other methods of analysis. In order to facilitate such chromatogrsphic analysis, the samples should be collected using an electric or hand pump into tubes containing chromatographic medium, such as Tenax for gas chromatography, or containing a suitable medium for chemically extracting the sample, Once the vapour sample is drawn onto the adsorbent tube, the sampling tube should be placed inside a protective, leak-resistant container, such as a pipe "piglette". The container should be sealed, and a sample identification code marked on the protective container.

2. Vegetation samples

Vegetation samples should be collected that appear to be different from normal nearby vegetation, that is, discoloured or withered, or having powder or droplets present. Vegetation samples should be collected at several locations within suspected contaminated areas. Vegetation samples should not be crushed, but placed in an unreactive, air-tight, impermeable, sealable, protective bag (such as mylar). The bag should then be sealed and marked with a sample identification number.

3. Soil samples

Soil samples should be collected from the vicinity of any apparent CBT weapons burst, from areas stained with oils or powders, from areas that are discoloured, or from areas that are otherwise different in appearance from the surrounding soil. Control soil material from an unaffected area is required for reference, preferably of the same type and texture. The minimum volume for such control material is approximately that of a cigarette pack. The sample should be collected using a clean knife, spoon, spatula, or piece of metal; placed in an unreactive, air-tight, impermeable, sealable, protective bag, sealed and marked with a sample identification number.

4. Water samples

If possible, water samples should be tested immediately for the presence of chemical agents using an appropriate agent test kit and the results recorded. Water samples should be taken at standing pools or along streams where dead animals are observed.

Bulk water samples should be taken when oily globules or suspended solids are present by skimming the surface with an unreactive, air-tight, glass or teflon container; filling the container; screwing on the top; sealing wit-h flexible sealing tape; and marking with a sample identification number on the bottle.

If water or other liquid samples are collected directly into a rhromatographic cartridge, the cartridge should be primed and used for sample collection in accordance with the instructions for that type of cartridge. Once collected, the sample cartridge should be placed in an unreactive, air-tight glass or toflon container arid marked with a sample identification number.

5. Sludge samples

Sludge samples from a shore or in a shallow bottom should be collected by scooping the top of solids with an open bottle, closing the bottle and sealing it with flexible sealing tape and marking the bottle with a ssmple identification number.

6. Packaging of samples

Samples should be packaged by placing several bags in one unreactive, air-tight, impermeable, sealable, protective bag, without overfilling, pressing excess air from the bag, and sealing, The package should be sealed, and marked with sample identification number(s).

7. Small animals

Bodies of small animals, preferably mammals, should be packaged by placing in an unreactive, air-tight, impermeable, sealable, protective bag, pressing excess air from the bag, and sealing. The bag should be marked with the sample identification number and placed into a second bag, and the air pressed out of the bag. The bag should be sealed with adhesive flap and with tape, and marked with the sample identification number.

8. Ordnance

Prior to approaching or handling any ordnance, exploded or unexploded, an eppropriate explosive ordnance disposal (EOD) unit should be contacted in order to identify the ordnance, if possible, by physical characteristics or markings, and to render it unexplosive, and sampled or transported to a specialised laboratory as most appropriate,

9. Protective equipment o'r clothing

Protective equipment and clothing from casualties can be an important source of agent for identification purposes. Samples of protective equipment or clothing should be placed in a large unreactive, air-tight, impermeable, sealable, protective bag, the bag folded, the air pressed from the bag, and the bag sealed. The bag should be marked with a sample identification number. The bag should then be placed inside another bag, sealed and marked with a sample identification number.

APPENDIX VIII

Sampling procedures for biomedical samples

1. Urine samples (20-50 ml per sample x 3) should be collected in urine specimen cups, tops sealed with wide tape, and placed in individual unreactive, air-tight, impermeable, sealable, protective bags.

2. Whole blood or serum samples (5 ml per sample x 3) should be collected in red-top blood tubes and placed in individual bags.

3. Sputum samples (x 3) should be collected only from acutely ill patients in urine specimen cups, tops sealed with wide tape, and placed in individual bags.

4. Cerebral spinal fluid (2 ml per sample x 3) should be collected in red-top blood tubes and placed in individual bags.

5. Human post-mortem organ and tissue samples (30 grams x 3) should be placed in a sterile container in individual, sealable bags, and refrigerated immediately: samples to include liver, spleen, lung, subcutaneous fat, cerebral spinal fluid, kidney, heart, and brain; in addition, at least two mediastinal lymph nodes should be collected.

6. Packaging of biomedical samples: the bag(s) and sample containers should be placed in a bag, excess air pressed from the bag, and the bag sealed tightly. The container should be marked with corresponding sample identification number(s). Absorbent packing material (preferably liquid chromatographic medium; otherwise vermiculite, foam, etc.) should be placed to a depth of 1 to 2 inches around the sample bag in a rigid container. Jars, tubes, or specimen cups should be wrapped in bubble wrap or other suitable material so they do not move in the container. A lid should be placed on the container and sealed with wide tape. All samples should be placed in an insulated chest, ensuring that the sample is packed tightly and an adequate supply of refrigerant is available. The chest should be sealed and labelled.

APPENDIX IX

Model interview questionnaire

The questionnaire below provides an outline that should be followed flexibly and as the conditions of the investigation dictate.

Investigators should refrain as far as possible from leading witnesses or victims and should leave them to say what they saw, heard or felt.

It may be of help to use a tape-recorder.

Date of interview:

Name of investigator;

Names of persons present, including interpreters;

WITNESS/VICTIM

Name: First name:

Age: Sex:

Occupation (and rank):

Place of work;

Address:

PHASE I: BEFORE THE ATTACK

Date and time of the attack:

Place of the attack:

Relief of the zone (flat, undulating, mountainous, obstacles, etc):

Vegetation:

Weather conditions (windy, wet, misty, sunny, wind, temperature):

Witness' position (relative to the place of the attack) at the time of the attack:

Was he/she in the open air or under cover?

How was he/she dressed and/or protected?

What was he/she doing?

Was he/she alone or with someone?

Other information!

PHASE II! THE ATTACK

A. NATURE OF THE VECTORS

A.1. Aerial attack

Aircraft: How many7

Missiles; How many?

Helicopters8 How many?

Altitude!

Spraying;

Bombs:

Explosion in the air:

on the ground:

How many/Intensity of the attack:

Order of occurrence of noises (dull, explosion, whistling, etc.):

A.2. Artillery

Shells :

Rockets :

Spraying;

Explosion in the air:

on the ground:

How many/Intensity of the attack;

Order of occurrence of noisesr

A.3. Land vehicles

Type:

Other methods of dissemination:

How many/Intensity of the attack:

Order of occurrence of noises:

A.4. Other

Specify:

B. ENVIRONMENTAL EFFECTS

8.1. Any odour observed

Of what kind?

Time taken to dissipate8

B.2. Cloud

Type (gaseous, smoke, aerosol, etc.):

Colour :

Shape :

Time taken to dissipater

B.3. Rain

Size and consistency of drops:

Colour of drops:

Persistence on the ground;

Intensity of contamination at ground level:

B.4. Estimate of area affected

B.5. Craters How many?

Typical size:

B.6. Effects on vegetation

Types, order and timer; of appearance;

B.7. Detection

Were tests made7

How long after the attack?

Of what kind were they?

Results?

C. EFFECTS ON HUMANS AND ANIMALS

C.1. Witness' first reaction

Any odour observed:

Of what kind?

Did he/she protect him/herself?

How?

Did he/she suffer?

Order and times of appearance of symptoms;

c.2. Victims in the witness' environment

How many?

Where were they?

Did they suffer?

Order and times of appearance of symptoms:

Did he/she see prople die?

Where were they?

How many?

How long after the attack7

Symptoms :

PHASE III: AFTER THE ATTACK

A. MEDICAL TREATMENT

Did the interviewee receive emergency medical treatment7

Of **what kind?**

How long after the **attack?**

Was he/she evacuated?

hospitalised?

Where?

For **how** long?

Nature of **treatment:**

Hospital report:

B. AFTER-EFFECTS

Has he/she recovered?

Does he/she **still** suffer?

From the same symptoms? **(Specify)**

What **has happened** to the other **cases** of **which he/she was awa e?**

C. OTHER INFORMATION

ANNEX II

Replies received from Member States

BULGARIA

(Original; English]

[27 June 1989]

The Permanent Mission of the People's Republic of Bulgaria to the United Nations has the honour to submit a list of qualified experts and consultants who may be used by the Secretary-General for the purposes of international inquiries into reports of violations of the Geneva Protocol of 1925.

First name, middle name, surname	Employer	Degree, post	Specialty	Languages
I. Expert consultants				
1. Mr. Boyko Milkov TARABANOV	Ministry of Foreign Affairs	Minister Plenipotentiary	Diplomat	Excellent English Good French
2. Mr. Peter Zdravkov POPCHEV	Ministry of Foreign Affairs	First Secretary	Diplomat	Excellent English French
II, Qualified experts				
A. Chemists				
1. Colonel Nikola Georgiev MIHAILOV	Ministry of Foreign Affairs	Ph.D.	Chemist	Excel lent English
2. Colonel Ivan Petrov IVANOV	Army Unit 26610	Ph.D.	Chemist	French
3. Major Nikolai Nikiforov YURUKOV	Army Unit 26610	Head of Laboratory	Chemist	English
B. Physicians				
1. Colonel Dimiter Spassov LEKOV	Higher Military Medical Institute	Professor DS; Head of Medical protection section	1. Intern 2. Military toxicologist 3. Medical protection	English French

First name, middle name, surname	Employer	Degree, Post	Specialty	Languages
2. Colonel Dimiter Petkov STEFANW	Higher Military Medical Institute	Asst. Prof. Ph.D. Head of Nephrology Clinic	1. Intern 2. Military field therapy 3. Nephrology	English German
3. Major Kamen Petrov KANEV	Army Unit 22420	Ph.D. Head of Scientific Dept.	1. Medical sanitary protection 2. Military toxicology	Excellent English Good German

ITALY

[Original: English]

[8 May 1989]

The Permanent Mission of Italy to the United Nations has the honour, as requested in paragraph 6 of General Assembly resolution 42/37 C, to communicate the names of the Italian experts that could be available at short notice to undertake investigations on the use of chemical weapons, and of Italian laboratories with the capability to undertake testing for the presence of agents the use of which is prohibited.

Experts

Dr. Giuseppe BATTAGLINO
Servizio Farmaceutico
Via Della Civiltà Romana, 7
00144 Rome (Tel. 06-5994, Ext. 675
Direct 06-5913500)

Dr, Roberto BINETTI
Laboratorio di Tossicologia
Applicata - Istituto Superior8 di Sanità
Viale Regina Elena, 299 - 00161 Rome
(Tel, 06-4990, Ext. 593)

Lt. Col. Roberto DI CARLO
Comando *Corpo* Tecnico Esercito
Via Nomentana, 274 - Rome
(Tel. 06-47357924)

Lt. Col. Corradb **MACCARI**
Comando Corpo Tecnico **Esercito**
Via **Nomentana, 274** - Rome
(Tel. 06-47357932)

Prof. **Michele** ARESTA
Dipartimento Chimica - **Università di Bari**

Prof. **Ivano BERTINI**
Dipartimento Chimica - **Università di Firenze**
Via **G. Capponi,** 9 - 50100 Florence

Laboratories

(1) Istituto Zooprofilattico Sperimentale **di Perugia,**
(Dr. Sergio DOMINICI)
Via G. **Salvemini,** 1 - 06100 Perugia

(2) Istituto **di Microbiologia, Universitá di Torino,**
(Prof. Pancrazio MARTINETTO)
Via **Satena,** 9 - 10126, **Torino**

(3) Centro Tecnico Chimico Fisico 8 Biologic0 **Esercito,**
Via Braccianese Claudia **km** 7 - Santa Lucia, 00053
Civitavecchia (Tel. 0766-31401-31402)

(4) Stabilimento Chimico Farmaceutico **Militare (SCFM)**
Via Giuliani, 201 - Florence (Tel. 055-450651-450653)

UNION OF SOVIET SOCIALIST REPUBLICS

[Original: Russian]

[23 January **1989]**

The Permanent Mission of the Union of Soviet Socialist Republics to the United Nations, referring to the Secretary-General's note of 21 March 1988, the **Permanent Mission's** note of 21 July 1988 and General **Assembly** resolution **42/37** C, **has** the **honour** to transmit the following information on laboratories in the Soviet Union designated to investigate **cases** of suspected use of chemical and bacteriological weapons.

Information on laboratories in the Union of Soviet Socialist Republics designated to carry out analyses for investigation of cases of use of chemical and bacteriological weapons

	Name of institution	Permanent address and telephone number of institution
	For analyses in connection with investigation of cases of chemical weapons use	
1.	Military academy for chemical defence	107005, Moscow, B-5 Brigadirskiy, Per., 13 Tel. 261-11-44
2.	Institute of Chemical Physics, Academy of Sciences of the USSR	117977, Moscow, V-334, A. N. Kosygina, 4 Tel, 137-32-32
	For analyses in connection with investigation of cases of bacteriological weapons use	
1.	"Microb" All-Union Anti-Epidemic Scientific Research Institute, Ministry of Health, USSR (for work on microbial agents)	410601 Saratov, Universitetskaya, 46 Tel. 24-21-31
2.	Byelorussian Epidemiological and Microbiological Scientific Research Institute, Ministry of Health, Byelorussian SSR (for work on viral agents)	220005 Minsk Noqina, 3 Tel, 20-26-28
