

## ON-SITE INVESTIGATIONS

by Graham S. Pearson

### Introduction

1. On-site investigations are central to an effective regime to strengthen the Biological and Toxin Weapons Convention (BTWC). On-site measures were discussed extensively by the Ad Hoc Group of Governmental Experts, known as VEREX, set up by the Third Review Conference<sup>1</sup> to identify and examine potential verification measures from a scientific and technical standpoint. VEREX met twice in 1992 and twice in 1993 and examined the following on-site measures:

#### On-site Measures

- Exchange visits - international arrangements
- Interviewing (on-site)
- Visual inspection (on-site)
- Identification of key equipment (on-site)
- Auditing (on-site)
- Sampling and identification (on-site)
- Medical examination (on-site)
- Continuous monitoring by instruments (on-site)
- Continuous monitoring by personnel (on-site)

Its final report<sup>2</sup> prepared in September 1993 stated that:

*The measure "Declarations" was most frequently identified for application in combination with other measures. The most frequently identified on-site measures in combination were on-site inspections (interviewing, visual inspection, identification of key equipment, sampling and identification, auditing). This does not mean that all the measures in parenthesis above always would be included in an on-site inspection. [Emphasis added].*

2. These VEREX considerations took place during the period immediately after the Conference on Disarmament had completed the negotiation of the Chemical Weapons Convention (CWC) with its verification regime comprising both routine and challenge inspections and whilst the United Nations Special Commission (UNSCOM) on Iraq was carrying out on-site inspections of both chemical and biological facilities in Iraq using experts from many of the States Parties to the BTWC to carry out these on-site inspections.

3. This Briefing Paper examines the arguments as to why on-site investigations are central to a strengthened regime for the BTWC drawing upon the previous VEREX, CWC and UNSCOM experience. It concludes that on-site investigations are an essential element of a future legally binding instrument to strengthen the BTWC. The broad consensus that has

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<sup>1</sup> United Nations, *The Third Review Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Geneva, 9–27 September 1991, BWC/CONF.III/23, Geneva 1992.

<sup>2</sup>United Nations, *Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint*, Report BWC/CONF.III/VEREX/9, Geneva 1993.

been developed by the Ad Hoc Group (AHG) towards a legally binding instrument comprising declarations and on-site investigations of non-compliance concern together with the support by many delegations for further visits -- non-challenge visits and clarification visits -- is examined and areas identified where the AHG needs to flesh out the rolling text.

### **VEREX Considerations**

4. The mandate for VEREX was to identify and examine from a scientific and technical standpoint measures which could determine:

- Whether a State Party is developing, producing, stockpiling, acquiring or retaining microbial or other biological agents or toxins, of types and in quantities that have no justification for prophylactic, protective or peaceful purposes;
- Whether a State Party is developing, producing, stockpiling, acquiring or retaining weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

These measures were to be examined in terms of six main criteria:

- Their strengths and weaknesses based on, but not limited to, the amount and quality of information they provide, and fail to provide;
- Their ability to differentiate between prohibited and permitted activities;
- Their ability to resolve ambiguities about compliance;
- Their technology, material, manpower and equipment requirements;
- Their financial, legal, safety and organizational implications;
- Their impact on scientific research, scientific cooperation, industrial development and other permitted activities, and their implications for the confidentiality of commercial proprietary information.

5. There was widespread support for the concept of international on-site inspections from the outset of VEREX. Thus in VEREX I, India tabled a working paper<sup>3</sup> that stated:

"The visits of the verification team need not be announced in advance. The team may visit any site both declared or undeclared of production or research and development and should have full access to all parts of the establishment in question .... The team may also interview any of the workers in the establishment".

The paper made it clear that such a verification team would include appropriate experts such as microbiologists, biotechnologists and administrators experienced in the study of financial records and production records.

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<sup>3</sup>United Nations, *A preliminary approach to the verification regime for the Biological Weapons Convention*, Working Paper by India, BWC/CONF.III/VEREX/WP.29, 9 April 1992.

6. Other views were expressed by Iran<sup>4</sup> who said that:

"Since research on biological warfare agents does not require large plants with various and complicated systems, the distinction between peaceful and prohibited activities is not an easy task. Consequently, evaluation and monitoring of biological facilities, in order to trace any possible biological weapons production will be extremely difficult and a costly enterprise. To implement an effective monitoring system, there is first a need for highly qualified and trained inspectors in the field of microbiology, immunology, aerobiology, fermentation, toxicology and biochemistry".

7. Peru clearly identified<sup>5</sup> the need for challenge inspections:

"The second pillar of the verification system would be constituted by challenge inspections, to eliminate any concern or doubt a State Party might have regarding the activities of another. It might be possible to draw on the model to be included in the future chemical weapons convention. However, because of the nature of pathogens and the danger they present, challenge inspections in the biological field might have other features."

and went on to say:

"In short, Mr Chairman, whatever potential verification measures we succeed in identifying and examining, the final result can only be a simple verification system..... founded basically on declarations and follow-up visits, challenge inspections and monitoring of transfers."

8. The VEREX I report<sup>6</sup> identified under On-Site Measures the following

## 2. INSPECTIONS

- 2.1 Interviewing
- 2.2 Visual inspection
- 2.3 Identification of key equipment
- 2.4 Auditing
- 2.5 Sampling and identification
- 2.6 Medical Examination

7. VEREX II saw the preparation of reports on each of the six separate measures identified in VEREX I by Rapporteurs:

- a. Interviewing – A. A. Mohammadi (Iran)

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<sup>4</sup>United Nations, *Elements of biological weapons monitoring systems*, Working Paper by Islamic Republic of Iran, BWC/CONF.III/WP.25, 7 April 1992.

<sup>5</sup>United Nations, *Statement by the head of the delegation of Peru, Dr Felix Calderon to the Ad Hoc Group of Governmental Experts to Identify and Examine Potential Verification Measures from a Scientific and Technical Standpoint set up under the Convention on the Prohibition of Bacteriological (Biological) and Toxin Weapons*, Working Paper by Peru, BWC/CONF.III/WP.22, 6 April 1992.

<sup>6</sup>United Nations, *Summary of the work of the Ad Hoc Group for the period 30 March to 10 April 1992*, Report BWC/CONF.III/VEREX 2, 13 April 1992

- b. Visual inspection – A. A. Mohammadi, Iran
- c. Identification of key equipment – Ake Bovallius, Sweden
- d. Auditing (On-site) – D. O. Arnold-Foster, UK
- e. Sampling and identification (on-site) – Patrice Binder, France
- f. Medical examination – Marian Negut, Romania

8. At VEREX II Brazil stated<sup>7</sup> that:

"The on-site proposed measures were grouped into exchange of visits, inspections and continuous monitoring. Obviously the most intrusive activity is the second one -- inspections. Exchange of visits are traditionally linked with the initial step towards the increase of transparency and to improve confidence and perhaps is the most important way for cooperation and technology transfer, as pointed by Article X of the BTW Convention".

and went on to say:

"On-site inspections are, of course, the more difficult task. Preparation of previous informations, and multi-disciplinary teams for on site inspections, rules of procedure to guide inspections, confidentiality regulations, standardization of sampling and identification methods procedures for routine and at short notice inspections, and finally inspection reports will be needed."

9. The summary report<sup>8</sup> of VEREX II included the reports of the rapporteurs noting that "These summaries, which are not considered to be exhaustive and might be further specified during evaluation, were thoroughly discussed by the Group, producing consolidated texts to serve as a basis of the beginning of the evaluation". These summaries include useful points on on-site inspections:

"On-site visit to facilities and establishments with activities of potential relevance to the objectives of the Convention is generally carried out by various national and international institutions and under different legislations in almost all countries. The inspectors of WHO have already routine visits to biological and industrial centres. These centres and facilities are used to and in practice are under the obligation to accept visits by responsible national authorities, particularly when they implement GMP, GLP and Biosafety type regulations. It can therefore be concluded that such a visual inspection is not uncommon or unusual for such establishments.

(Mohammadi, BWC/CONF.III/VEREX/WP.82/Rev.1)

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<sup>7</sup>United Nations, *Preliminary Aspects on the Evaluation of the Potential Verification Measures as they were proposed during the First meeting of the Governmental Expert Group*, Working Paper by Brazil, BWC/CONF.III/WP.54, 25 November 1992.

<sup>8</sup>United Nations, *Summary of the work of the Ad Hoc Group for the period 23 November to 4 December 1992*, Report BWC/CONF.III/VEREX 4, 8 December 1992

"An essential part of an on-site inspection is the assessment of a facilities capacities and the equipment used to ensure that the equipment is not used for prohibited activities. Another aspect of on-site inspections is to confirm declarations"

(Bovallius, BWC/CONF.III/VEREX/WP.83/Rev.1)

10. The subsequent VEREX meetings, VEREX III and VEREX IV, continued the evaluation of the various measures leading to the conclusion in the final VEREX report that "potential verification measures as identified and evaluated could be useful in varying degrees in enhancing confidence, through increased transparency, that States parties were fulfilling their obligations under the BWC."

### Special Conference

11. The final report of VEREX was then considered by the Special Conference in September 1994. The report of the Special Conference noted<sup>9</sup> that the VEREX report considered that "some combinations of some potential verification measures, including **both off-site and on-site measures**, could provide information which could be useful for the main objective of the Biological Weapons Convention." [Emphasis added]. It was thus apparent that there was a general acceptance at the Special Conference of the need for both off-site and on-site measures to strengthen the BTWC.

12. At the Special Conference, States Parties agreed to establish a further Ad Hoc Group with the objective being to consider appropriate measures, including possible verification measures, and draft proposals to strengthen the Convention, to be included, as appropriate, in a legally binding instrument, to be submitted for the consideration of the States Parties. In this context, the Ad Hoc Group shall, *inter alia*, consider:

- *Definitions of terms and objective criteria, such as lists of bacteriological (biological) agents and toxins, their threshold quantities, as well as equipment and types of activities, where relevant for specific measures designed to strengthen the Convention;*
- *The incorporation of existing and further enhanced confidence building and transparency measures, as appropriate, into the regime;*
- *A system of measures to promote compliance with the Convention, including, as appropriate, measures identified, examined and evaluated in the VEREX Report. **Such measures should apply to all relevant facilities and activities**, be reliable, cost effective, non-discriminatory and as non-intrusive as possible, consistent with the effective implementation of the system and should not lead to abuse; [Emphasis added]*
- *Specific measures designed to ensure effective and full implementation of Article X, which also avoid any restrictions incompatible with the obligations undertaken under the Convention, noting that the provisions of the Convention should not be used to impose restrictions and/or limitations on the transfer for purposes consistent with the*

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<sup>9</sup>United Nations, *Special Conference of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Final Report, BWC/SPCONF/1, 19 - 30 September 1994, Geneva.

*objectives and the provisions of the Convention of scientific knowledge, technology, equipment and materials.*

The mandate also required that

- Measures should be formulated and implemented in a manner designed to protect sensitive commercial proprietary information and legitimate national security needs.
- Measures shall be formulated and implemented in a manner designed to avoid any negative impact on scientific research, international cooperation and industrial development.

The remit for the AHG also made it clear that *"the regime would include, inter alia, potential verification measures, as well as agreed procedures and mechanisms for their efficient implementation and measures for the investigation of alleged use."*

13. The mandate for the AHG thus requires measures applicable to all relevant facilities and activities as well as for the investigation of alleged use.

### **CWC Inspections**

14. The CWC<sup>10</sup> which opened for signature on 13-15 January 1993 and entered into force on 29 April 1997 comprises a regime of comprehensive declarations together with both routine and challenge inspections as well as provisions for the investigation of alleged use and the monitoring of the destruction of declared chemical weapons and chemical weapon production facilities. Routine inspections are to carry out "on-site verification" of declared facilities producing either permitted quantities of chemical warfare agents or production of precursors and other specified chemicals having permitted applications. "On-site challenge inspections" can be requested by any State Party of "any facility or location in the territory or in any other place under the jurisdiction or control of any other State Party for the sole purpose of clarifying and resolving any questions concerning possible non-compliance" with the provisions of the CWC (Article IX, para 8). In the case of investigations of alleged use, the inspection team shall have "the right of access to any or all areas which could be affected by the alleged use of chemical weapons. It shall also have the right of access to hospitals, refugee camps and other locations it deems relevant to the effective investigation of the alleged use of chemical weapons" (Verification Annex, Part XI, para 15). Thus, on-site verification measures are central to the CWC in its inspections, investigations and monitoring of destruction.

15. The relevance of the provisions of the CWC to the BTWC is two fold. First, both Conventions prohibit the development and production of weapons which attack people -- in the one case by non-living materials (chemicals) and in the other by living materials (micro-organisms) and their non-living products (toxins). Second, there is an overlap -- and rightly so -- between the two Conventions in that both cover toxins. Thus the CWC and its verification regime applies to toxins -- and examples of toxins, such as saxitoxin and ricin, are listed in the CWC Schedules -- as does the BTWC.

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<sup>10</sup>United Nations, *Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction*, United Nations 93-05070, 1993.

16. Consequently, several of the provisions of the CWC, such as those for the carrying out of "on-site challenge inspections", are worthy of further consideration as they could well serve as a basis or model for the drawing up of a comparable regime for the BTWC. These are considered later in this paper.

### **UNSCOM Inspections**

17. Although the situation in respect of UNSCOM and Iraq is unique, it is relevant to consider what lessons can be drawn concerning the importance of on-site investigations.

18. Following the Iraq invasion of Kuwait on 2 August 1990 and the coalition war against Iraq in early 1991, the United Nations Security Council adopted Resolution 687 (1991)<sup>11</sup> on 3 April 1991 which set out the requirements for the cease-fire. This resolution also required in Section C that Iraq was to eliminate, under international supervision, its chemical and biological weapons stockpiles and its ballistic missiles with a range greater than 150 km. Iraq was required to submit to the Secretary-General, within 15 days of the Resolution's adoption, a declaration of the locations, amounts and types of such weapons, and the Secretary-General was to develop a plan for creating a Special Commission to "carry out immediate on-site inspection of Iraq's biological chemical and missile capabilities, based on Iraq's declarations and the designation of any additional locations by the Special Commission itself" in order to take possession of these weapons and supervise their destruction. The Secretary-General was also required to develop, in consultation with the Special Commission, a plan for the future ongoing monitoring and verification of Iraq's compliance with the ban on these weapons and missiles.

19. Following the acceptance by Iraq of Resolution 687 (1991) and the setting up of the Special Commission, an exchange of letters of 6 and 17 May 1991 between the Secretary-General and the Government of Iraq agreed the status, privileges and immunities of the Special Commission and its visiting teams. These included:

- a. Right to unimpeded access to any site or facility for the purpose of on-site inspection whether such site or facility be above or below ground
- b. Right to request, receive, examine and copy any record, data or information or examine, retain, move or photograph, including videotape, any item relevant to the Special Commission's activities and to conduct interviews
- c. Right to designate any site whatsoever for observation, inspection or other monitoring activity and for storage, destruction or rendering harmless items described in resolution 687 (1991).

As Iraq had failed to comply with Resolution 687 (1991), in August 1991 the Security Council adopted Resolution 707 (1991)<sup>12</sup> which demanded *inter alia* that Iraq ensure the

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<sup>11</sup>United Nations Security Council, *Security Council Resolution establishing detailed measures for a cease-fire, including deployment of the United Nations Observer Unit; arrangements for demarcating the Iraq-Kuwait border; the removal or destruction of Iraqi weapons of mass destruction and measures to prevent their reconstitution, under the supervision of a Special Commission and the Director General of the IAEA; and creation of a compensation fund to cover direct loss and damage resulting from Iraq's invasion of Kuwait, S/RES/687 (1991)*, 3 April 1991.

<sup>12</sup>United Nations Security Council, *Security Council Resolution demanding that Iraq provide full disclosure of its weapon programmes as required by Security Council Resolution 687(1991) and allow UNSCOM, the IAEA*

complete enjoyment, in accordance with its previous undertakings, of the privileges, immunities and facilities accorded to the representatives of the Special Commission and the IAEA. The provisions in the agreement with Iraq are recapitulated, elaborated and reinforced in the Special Commission's plan<sup>13</sup> for the future ongoing monitoring and verification (OMV) of Iraq's compliance with its undertaking not to retain, possess, develop, construct or otherwise acquire any of the proscribed weapons systems.

20. Some six years later, UNSCOM had mounted from outside of Iraq close to 200 inspections in Iraq -- many of which had involved on-site inspections of one or more facilities or locations -- and many more on-site visits carried out by the staff of the Baghdad Monitoring and Verification Centre under the OMV plan. Over 50 of the 200 inspections have been in respect of Iraq's biological weapons programme. Currently some 86 biological sites are being regularly monitored<sup>14</sup> under the OMV plan with over 150 visits being carried out to these sites in a six month period<sup>15</sup>. The achievements of UNSCOM in uncovering the Iraqi biological weapons programme in the face of the Iraqi concealment programme<sup>18</sup> has been critically dependent on the ability of UNSCOM to carry out on-site investigations of sites and facilities in Iraq using on-site measures as well as benefit from the information made available to the Commission.

21. The UNSCOM experience has shown the immense value of the on-site measures identified by VEREX: interviewing, visual inspection, identification of key equipment, sampling and identification, and auditing. The reports of UNSCOM provide valuable insights into the value of these measures. As examples, interviewing and auditing are considered further below.

22. **Interviewing.** Thus, in respect of interviewing, the UNSCOM report of 15 December 1994<sup>16</sup> stated that it faced its greatest problems in accounting for Iraq's past biological programmes. Iraq's account was minimal and had no inherent logic. While access had been provided to interview the personnel involved in the declared programme, interviewees had refused to answer questions relating to the programme, providing only incomplete and misleading information. Further detail is provided in the same report about an UNSCOM inspection (UNSCOM 104/BW15) which had taken place from 15-22 November 1994 in order to interview Iraqi officials who may have been associated with the past programmes in order to clarify the following points:

\* Links between the Salman Pak site and other organisations;

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*and their inspection teams immediate, unconditional and unrestricted access to sites they wish to inspect, S/RES/707(1991), 15 August 1991.*

<sup>13</sup>United Nations Security Council, *Report of the Secretary General submitting the plan, revised pursuant to the adoption of Security Council resolution 707(1991), for future monitoring and verification of Iraq's compliance with the destruction or removal of weapons specified in Security Council resolution 687(1991), S/22871/Rev.1, 2 October 1991.*

<sup>14</sup>United Nations Security Council, *Report of the Secretary-General on the activities of the Special Commission established by the Secretary-General pursuant to paragraph 9 (b) (i) of Resolution 687 (1991), S/1997/301, 11 April 1997.*

<sup>15</sup>United Nations Security Council, *Report of the Secretary-General on the activities of the Special Commission established by the Secretary-General pursuant to paragraph 9 (b) (I) of Resolution 687 1991, S/1996/848, 11 October 1996.*

<sup>16</sup> United Nations Security Council, *Eighth Report of the Executive Chairman of UNSCOM, S/1994/1422 and addendum, S/1994/1422/Add. 1, 15 December 1994.*

- \* The logic of the programme, including doctrine, practice, priorities, achievements, acquisition of bio-technology and know-how, protection and medical aspects, storage and rationale for location of the programme;
- \* The material balance for equipment, cell stocks and complex media acquired by Salman Pak or the programme; and
- \* The real extent of intentions of the programme.

The report noted that during the inspection, the team had held discussions with 28 persons, many of whom had never been in contact with the Commission's experts before, including 9 of the 10 employees at Salman Pak. Access to personnel, whose identity had not previously been disclosed, therefore constituted a major step forward. While the Commission remained unconvinced that Iraq's account of its past programme was either complete or accurate, this team did obtain new information, the significance of which required further examination.

23. **Auditing.** A further example of the value of on-site measures is demonstrated by the UNSCOM experience in auditing the growth media procured by Iraq. The April 1994 UNSCOM report<sup>17</sup> stated that Iraq had acknowledged that it had procured, through the Technical and Scientific Materials Import Division (TSMID), very large quantities of complex growth media in 1988 but had failed to provide an accounting for the purposes of this importation and for the use of a significant portion of it. Iraq claimed that, while the media had been imported by TSMID, the import was on behalf of the Ministry for Health for the purposes of hospital diagnostic laboratories. This importation of media by types, quantities and packaging was grossly out of proportion to Iraq's stated requirements for hospital use. Iraq explained the excessive quantities imported and the inappropriate size of the packaging as being of a one of a kind mistake and attempted to justify the import as appropriate and required for medical diagnostic purposes.

24. The UNSCOM report notes, however, that for hospital diagnostic purposes, only small quantities are needed. According to Iraq's declarations, which were imprecise and changing, over the period 1987-1994 Iraq's total hospital consumption of all such media was less than 200 kg per annum. But in 1988 alone, TSMID imported nearly 39,000 kg of such media, which had a manufacturer's guarantee of 4-5 years. A further incongruity was that, of all the types of media required for hospital use, only a select few were "mistakenly" imported by TSMID in large quantities. These did not include those most frequently used in hospitals. Furthermore, the packaging of TSMID imports was inconsistent with declared hospital usage: diagnostic assays use very small quantities of media and so, because the media deteriorates rapidly once the package has been opened, media for diagnostic purposes is normally distributed in 0.1 - 1 kg packages. However, the media imported by Iraq in 1988 was packaged in 25 - 100 kg drums. This style of packaging was consistent with the large scale use of media associated with the production of biological agents. The types of media imported were suitable for the production of anthrax and botulinum, known biological warfare agents researched by Iraq in its declared biological and military programme.

25. The Special Commission had only accounted for some 22 tonnes of the 39 tonnes of complex media imported by TSMID in 1988. The media accounted for was still stored in Iraq (in large packages) and was under the Commission's monitoring regime. However,

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<sup>17</sup>United Nations Security Council, *Seventh Report of the Secretary-General on the status of the implementation of the plan for the ongoing monitoring and verification of Iraq's compliance with relevant parts of Section C of Security Council Resolution 687 (1991)*, S/1995/284, 10 April 1995.

some 17 tonnes remained unaccounted for. Iraq claimed that this quantity was distributed in original packages to numerous hospitals in 1989 but that it was all destroyed (along with documentation concerning its distribution, storage and consumption in hospitals) during riots that occurred in the aftermath of the Gulf War. It was claimed that no media was distributed to hospitals in regions where no riots occurred, eg in the Baghdad region. No attempts were made by Iraq to resupply the affected regions or hospitals to compensate for losses, although large amounts of the same imported media in good condition were still available in Iraq.

26. Iraq had initially presented a set of documents in an attempt to prove that media had been received by a Ministry of Health storage site and had been partly distributed to certain regional health centres. The report states that *"Iraq subsequently admitted that these documents had in fact been "recreated" and now claims that all originals have been destroyed, misplaced or lost."* [Emphasis added]

27. The UNSCOM report also noted that Commission had information that, in addition to media delivered to Iraq in 1988, quantities of media had also been purchased by Iraq in 1989 and 1990. Evidence of additional supplies in large packages had been found in Iraq. This undermined Iraq's declaration that the TSMID purchases in 1988 had been a one of a kind mistake as to the types and packaging of media imported, as did the fact that the Ministry of Health continued, through its own import division, its regular small quantity purchases of media consistent with its diagnostic requirements through the period, including the purchase of kilogram quantities of two growth media only months after TSMID purchased 2.25 tonnes of the same media. Iraq's current accounting of media importation and disposal was not acceptable. Full and substantial accounting by Iraq for the media, eminently suitable for production of biological agents, was an essential requirement.

28. Even though the UNSCOM and Iraq situation is unique, it does serve to underline the vital necessity for on-site investigations in achieving transparency and determining whether facilities and locations are involved in proscribed programmes. The examples provided above of the value of two measures -- interviewing and auditing -- show how such measures can identify major anomalies. It is worth noting that in the BTWC context, States that are compliant have nothing to fear from such measures as their activities will be permitted and major anomalies will not, unlike the Iraq case, be found.

### **On-site Investigations**

29. It is evident that the concept of on-site investigations is widely accepted as a central measure in both chemical and biological arms control regimes. It is also central to other arms control regimes such as the Nuclear Non-Proliferation Treaty (NPT) and those relating to conventional forces such as CFE. The VEREX discussions recognised that on-site measures had a potentially important role to play in a future strengthened BTWC and the role of on-site investigations has rightly received much attention in the subsequent Ad Hoc Group negotiations. On-site inspection is central to the CWC in respect of routine and challenge inspections, the investigation of allegations of use and the monitoring of the destruction of chemical weapons and chemical weapon production facilities. The CWC has a carefully negotiated set of measures that strike a balance between ensuring that the on-site inspections are effective and the protection of sensitive information not related to chemical weapons. This set of measures merits careful consideration as the basis of a similar set of measures for the strengthening of the BTWC. The importance of on-site inspections, particularly in the face of attempts to conceal proscribed capabilities, has been clearly demonstrated by UNSCOM.

## Ad Hoc Group

30. The Ad Hoc Group (AHG) under the chairmanship of Ambassador Toth of Hungary held a procedural meeting on 3 - 5 January 1995<sup>18</sup> and then substantive meetings on 10 -21 July 1995<sup>19</sup>, 27 November - 8 December 1995<sup>20</sup>, 15 - 26 July 1996<sup>21</sup>, 16 -27 September 1996<sup>22</sup> and 3-21 March 1997<sup>23</sup>. The AHG has functioned by the appointment of four Friends of the Chair (FOC) who chair the sessions concerned with the four elements of the mandate:

- a. Definitions of Terms and Objective Criteria - Dr Ali Mohammadi of the Islamic Republic
- b. Confidence-Building and Transparency Measures - Ambassador Tibor Toth of Hungary
- c. Measures to Promote Compliance - Mr Stephen Pattison then Ambassador Sir Michael Weston of the United Kingdom of Great Britain and Northern Ireland
- d. Measures Related to Article X - Ambassador Jorge Berguno of Chile.

31. At successive AHG meetings, the FOC have produced papers that reflect the discussions that have taken place yet are without prejudice to the positions of delegations on the issues under consideration in the Ad Hoc Group and does not imply agreement on the scope or content of the paper. These FOC papers are considered by the AHG in plenary session and amended as requested by delegations so that they reflect the views expressed before they are accepted for attachment to the procedural reports of the meetings.

32. At the Fourth Review Conference of the BTWC held on 25 November to 6 December 1996, the States Parties in their Final Declaration<sup>24</sup> stated that:

*The Conference welcomed the decision of the Ad Hoc Group, in order to fulfil its mandate, to intensify its work with a view to completing it as soon as possible before*

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<sup>18</sup> United Nations, *Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Procedural Report, BWC/AD HOC GROUP/3, 6 January 1995.

<sup>19</sup> United Nations, *Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Procedural Report, BWC/AD HOC GROUP/28, 24 July 1995.

<sup>20</sup> United Nations, *Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Procedural Report, BWC/AD HOC GROUP/29, 12 December 1995.

<sup>21</sup> United Nations, *Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Procedural Report, BWC/AD HOC GROUP/31, 26 July 1996.

<sup>22</sup> United Nations, *Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Procedural Report, BWC/AD HOC GROUP/32, 27 September 1996.

<sup>23</sup> United Nations, *Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Procedural Report, BWC/AD HOC GROUP/34, 27 March 1997.

<sup>24</sup> United Nations, *Fourth Review Conference of the Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, Final Declaration, BWC/CONF.IV/9, Geneva, December 1996.

*the commencement of the Fifth Review Conference and submit its report, which shall be adopted by consensus, to the States Parties, to be considered at a Special Conference. The Conference encourages the Ad Hoc Group to review its method of work and to move to a negotiating format in order to fulfil its mandate.*

It was therefore encouraging at the next AHG meeting in March 1997<sup>23</sup> to see the inclusion as Annex II of the procedural report of a list of "Possible Structural Elements of a Protocol to the BWC" together with the understanding that in the July 1997 AHG meeting a move is probable to a negotiating format which will address a rolling text to be issued before the July meeting.

33. The FOC papers summarising the extensive discussion thus far in the AHG on on-site investigations will become the basis for the rolling text and thus be developed further and fleshed out in a negotiating format at the July 1997 and subsequent AHG meetings. The March 1997 AHG meeting<sup>23</sup> saw the inclusion in the procedural report of papers prepared by the FOC on compliance measures which addressed Declarations, Investigations of Non-Compliance Concerns, Other Visits (including Non-Challenge Visits and Clarification Visits) and Measures to Strengthen the Implementation of Article III. In respect of on-site investigations, the FOC paper on investigations of a non-compliance concern addresses the following key elements:

- Types of investigation
- Consultation, clarification and cooperation
- Initiation
- Information to be submitted with a request for an investigation
- Screening (to guard against abusive requests)
- Pre-investigation procedures
- Access/conduct of investigations
- Measures to guard against abuse during investigation
- Implementation of specific on-site measures
- Post-investigation procedures

whilst the paper on other visits and procedures whilst not as developed as that on investigations of non-compliance concerns includes the following headings:

- Non-challenge visits
  - Procedures
  - Initiation
  - Implementation

- Clarification procedures/visits
  - Procedures
  - Initiation
  - Implementation
  - Outcome

34. There is thus a very welcome broad consensus developing in the AHG towards a legally binding instrument with on-site investigations whether of non-compliance concerns or other

visits such as non-challenge and clarification visits. It is also encouraging to see the recognition of a package of on-site measures with specific identification of:

for facility investigations

- Interviewing
- Visual Observation
- Identification of Key Equipment
- Auditing
- Medical Examination
- Sampling and Identification

and, for field investigations

- Access
- Interviewing of eyewitnesses
- Interviewing of potentially exposed humans
- Interviewing of officials/personnel
- Visual Observation
- Disease related examination
- Sampling and identification
- Collection of background information and data.

35. It is apparent from both consideration of the CWC procedures and the experience of UNSCOM, that investigation teams need to have a range of measures available which they can select and use as appropriate for the circumstances of the particular investigation. The CWC experience indicates that the inspected State can utilise managed access procedures so as to safeguard specific information that it regards as sensitive subject always to the inspected State being under the clear obligation to satisfy the non-compliance concern by providing other information.

36. The July 1997 AHG meeting should see the development of a rolling text and the transition of the AHG to a negotiating format. It is thus timely to consider some of the detailed provisions in the CWC in respect of on-site investigations as these could with advantage be drawn upon by the AHG in fleshing out the necessary details for the rolling text.

### **CWC On-Site Investigation Provisions**

37. Article IX of the CWC on Consultations, Cooperation and Fact-Finding sets out the procedures for challenge inspections which are elaborated and detailed in Part X of the verification Annex. Key points made in Article IX in respect of challenge inspections are that:

- a. On-site challenge inspection can be requested of any facility or location (para 8)
- b. On-site challenge inspection is for the sole purpose of clarifying and resolving any questions concerning possible non-compliance with the Convention (para 8)

c. Each State Party is under the obligation to keep the inspection request within the scope of the Convention and to provide in the inspection request all appropriate information on the basis of which a concern has arisen regarding possible non-compliance with the Convention (para 9)

d. Each State party has the right to have the challenge inspection conducted anywhere without delay by an inspection team designated by the Director General (para 8)

e. The inspected State Party shall have the right and the obligation to make every reasonable effort to demonstrate its compliance with the Convention (para 11)

f. The inspected State Party shall have the obligation to provide access within the requested site for the sole purpose of establishing facts relevant to the concern regarding possible non-compliance (para 11)

g. The inspected State Party shall have the right to take measures to protect sensitive installations, and to prevent disclosure of confidential information and data not related to the Convention (para 11)

h. The inspection team shall be guided by the principle of conducting the challenge inspection in the least intrusive manner possible, consistent with the effective and timely accomplishment of its mission. (para 19)

i. If the inspected State Party proposes arrangements to demonstrate compliance, alternative to full and comprehensive access, it shall make every reasonable effort, through consultations with the inspection team, to reach agreement on the modalities for establishing the facts with the aim of demonstrating its compliance (para 20).

38. Article IX also contains provisions to safeguard against frivolous or abusive requests:

a. Each State party shall refrain from unfounded inspection requests, care being taken to avoid abuse (para 9)

b. The Executive Council may, not later than 12 hours after having received the inspection request, decide by a three-quarters majority of all of its members against carrying out the challenge inspection, if it considers the inspection request to be frivolous, abusive or clearly beyond the scope of the Convention (para 17)

c. The Executive Council shall review the final report of the inspection team and address any concerns *inter alia* as to whether the right to request a challenge inspection has been abused (para 22)

d. In the case of abuse, the Executive Council shall examine whether the requesting State party should bear any of the financial implications of the challenge inspection (para 23).

39. Part X of the Verification Annex of the CWC sets out detailed provisions for the carrying out of challenge inspections under Article IX of the Convention. Some 61 paragraphs address the following broad topics:

- A. Designation and Selection of Inspectors and Inspection Assistants
- B. Pre-Inspection Activities
- C. Conduct of Inspections
- D. Post-Inspection Activities.

40. The section on pre-inspection activities is primarily concerned with the securing of the perimeter of the site to be inspected and the monitoring of all vehicular exit activity. It also includes provisions for a pre-inspection briefing and preparation of an inspection plan:

- a. The inspected State party shall provide a safety and logistical briefing to the inspection team prior to access to facilitate development of an inspection plan (para 32)
- b. In the course of this briefing, the inspected State party may indicate to the inspection team the equipment, documentation, or areas it considers sensitive and not related to the purpose of the challenge inspection (para 33)
- c. The inspection team shall be briefed on the availability of facility personnel and records (para 33)
- d. After the pre-inspection briefing, the inspection team shall prepare, on the basis of the information available and appropriate to it, an initial inspection plan which specifies the activities to be carried out by the inspection team, including the specific areas of the site to which access is desired (para 34).

41. The section on the conduct of inspections sets out detailed provisions concerning access and how managed access may be used to protect sensitive information not related to chemical weapons:

- a. The inspected State Party shall provide access within the requested perimeter as well as, if different, the final perimeter. The extent and nature of access to a particular place or places within these perimeters shall be negotiated between the inspection team and the inspected State Party on a managed access basis (para 38)
- b. In meeting this requirement to provide access, the inspected State Party shall be under the obligation to allow the greatest degree of access taking into account any constitutional obligations it may have with regard to proprietary rights or searches and seizures (para 41)
- c. The inspected State Party has the right under managed access to take such measures as are necessary to protect national security (para 41)
- d. These provisions may not be invoked by the inspected State Party to conceal evasion of its obligations not to engage in activities prohibited under the Convention (para 41)
- e. If the inspected State Party provides less than full access to places, activities, or information, it shall be under the obligation to make every reasonable effort to provide alternative means to clarify the possible non-compliance concern that generated the challenge inspection (para 42)

f. The inspection team shall use only those methods necessary to provide sufficient relevant facts to clarify the concern about possible non-compliance with the provisions of the Convention, and shall refrain from activities not relevant thereto (para 44)

g. Any material collected and subsequently found not to be relevant shall not be retained (para 44).

42. Managed access is addressed in a separate subsection (paras 46 to 52) which includes:

a. The inspection team shall take into consideration suggested modifications of the inspection plan and proposals which may be made by the inspected State Party to ensure that sensitive equipment, information or areas, not related to chemical weapons, are protected (para 46)

b. The inspection team and the inspected State party shall negotiate:

- The extent of access to any particular place or places
- The particular inspection activities, including sampling, to be conducted by the inspection team
- The performance of particular activities by the inspected State Party, and
- The provision of information by the inspected State Party (para 47)

c. The inspected State Party shall have the right to take measures to protect sensitive installations and protect disclosure of confidential information and data not related to chemical weapons. Such measures may include, *inter alia* :

- Removal of sensitive papers from office spaces
- Shrouding of sensitive displays, stores and equipment
- Shrouding of sensitive pieces of equipment, such as computer or electronic systems
- Logging off of computer systems and turning off of data indicating devices
- Restriction of sample analysis to presence or absence of chemicals listed in Schedules 1, 2 and 3 or appropriate degradation products
- Using random selective access techniques whereby inspectors are requested to select a given percentage or number of buildings of their choice to inspect; the same principle can be applied to the interior or content of sensitive buildings
- In exceptional cases, giving only individual inspectors access to certain parts of the inspection site (para 48).

d. The inspected State party shall make every reasonable effort to demonstrate to the inspection team that any object, building, structure, container or vehicle to which the inspection team has not had full access is not used for purposes related to the possible non-compliance concerns raised in the inspection request (para 49).

43. The CWC has thus a series of provisions aimed at ensuring that on-site challenge inspections can be made of "any facility or location in the territory or in any other place under the jurisdiction or control of any other State Party" and will clarify and resolve "any questions concerning possible non-compliance" with the Convention. These provisions clearly place the obligation on the inspected State Party "to make every reasonable effort to demonstrate its

compliance" whilst also having provisions to protect against frivolous or abusive requests and to protect sensitive facilities, equipment and information not related to chemical weapons. A parallel set of provisions, tailored appropriately for the BTWC, would appear necessary for a strengthened BTWC.

## **Conclusions**

44. Consideration of the VEREX, CWC and UNSCOM experience shows that on-site investigations are an essential and central element for an effective verification regime. The AHG has made good progress in identifying on-site investigations on non-compliance concerns together with non-challenge visits and clarification visits as elements of the legally binding instrument for the BTWC. It is also evident that a package of measures need to be available for the investigation team to draw on according to the particular circumstances. The provisions of the CWC in respect to its requirements for on-site inspection are highly relevant and should be considered by the AHG as a basis from which to work in fleshing out the rolling text for the legally binding instrument for the BTWC.