

**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**

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**Working paper submitted by the Friend of the Chair on Investigations Annex**

**APPROVED INVESTIGATION EQUIPMENT REVISITED**

**Introduction**

The list of approved investigation equipment as it appears at present in Appendix D was compiled in informal meetings during previous sessions of the Ad Hoc Group. Items were placed on the list at random without in depth consideration of the proposals. This process was necessary in that it provided a list that can now be considered in depth.

In considering the utility of items on the list, a number of factors and requirements should be borne in mind. These include, *inter alia*, the size of equipment - it should be portable by at the most 2 persons, transportability, necessity for calibration after transport - which is a negative factor, cost, ability to be used under adverse conditions and possible availability in receiving State Party or on investigation site.

**Evaluation of existing list**

The existing list was evaluated taking into account the factors mentioned above. The following alterations to the list are proposed (additions in bold, motivations in italics in "Notes" column):

**[LIST OF APPROVED INVESTIGATION/VISIT EQUIPMENT**

|   | Description  | Notes  |
|---|--|--|
|   | <b>SAMPLING AND IDENTIFICATION EQUIPMENT<sup>1</sup></b>       |  |
| 1 | <del>Sample tubes and microbiological</del><br>Transport media | <i>Detail to be included in the specification.</i> |

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1. The list of sampling equipment will depend on whether analyses will be done on-site or off-site.

|    | Description  | Notes  |
|----|--|--|
| 2  | <b>Sample containers</b>   | <i>Include all types of sample tubes, plastic bags for ground samples, plastic bags for vacuum packing of samples - all to be included in specification.</i> |
| 3  | <del>Containers for samples</del> <b>Shipping containers</b>                             | <i>Include dry ice shippers and liquid nitrogen shippers, detail to be included in specification.</i>  |
| 4  | Preserving media <b>and fixatives</b> (i.e. formalin, alcohol, silica gel)               |  |
| 5  | Forceps (various sizes)  |  |
| 6  | Post mortem <del>sets instruments:</del><br><del>—Scissors, scalpels, bone forceps</del> | <i>The content of the set should be set out in the specification.</i>  |
| 7  | Syringes and needles for blood samples   |  |
| 8  | Thermometers and probes  |  |
| 9  | Incinerator and disinfectant tanks/sprays  |  |
| 10 | Biohazard bench, glove box   |  |
| 11 | Gas burners <del>and gas</del>   | <i>Gas is not allowed by IATA.</i>   |
| 12 | Microscopes, stains and slides   |  |
| 13 | Culture media:<br><del>—Diploid cell culture media</del>                                 | <i>Types of culture media can be listed in the specification, if necessary.</i>  |
| 14 | Autoclave/pressure cooker  |  |
| 15 | Incubator and anaerobic equipment  | <i>Detail to be included in specification.</i>   |
| 16 | Freezer: -70°C best/ <del>dry ice</del>  | <i>Dry ice to be included under shipping containers.</i>   |
| 17 | Refrigerator   |  |
| 18 | Portable PH metre/millivolt metre with ion-specific electrodes                           |  |
| 19 | Glucose analyser   |  |
| 20 | Dissolved oxygen metre   |  |
|    |  |  |

|    | Description   | Notes   |
|----|---|---|
| 21 | Pruning shears  |   |
| 22 | <del>Spades and plastic bags for ground samples</del>                                       | <i>Plastic bags to be included under sample containers.</i> |
| 23 | Soil augers   |   |
| 24 | Sampling equipment for:<br>Air samples<br>Surface samples<br>Fluid samples other than water | Pieces of equipment to be identified in detail.             |
| 25 | <del>Water sampling equipment including filter disks</del>                                  | <i>Detail in specification.</i>                             |
| 26 | Portable water pump   | <i>Detail in specification.</i>                             |
| 25 | <del>Liquid nitrogen in cylinders</del>   | <i>To be included in specification of item 3.</i>           |
| 27 | Seals (fibre optic and packages)  |   |
| 28 | Seals (frangible, fractural, adhesive)  |   |
| 29 | Vacuum sealing equipment  |   |
| 29 | <del>Plastic bags for vacuum packing of samples</del>                                       | <i>To be included in specification of item 2.</i>           |
| 30 | Tags/tie on/markers (permanent)   |   |
| 31 | Centrifuges   | <i>Types to be specified.</i>                               |
| 32 | Portable spectroscopic analyser   |   |
| 33 | Portable flow cytometers  |   |
| 34 | <del>Thermal cyclers</del> <b>PCR equipment</b>   | <i>Types and detail to be included in specification.</i>    |
| 35 | Pipettes  |   |
| 36 | Freeze drying equipment (lyophilizers)  |   |
| 37 | Water baths   |   |
| 38 | <del>Hand held test kits</del>  | <i>To be included in specification of diagnostic kits.</i>  |
| 38 | Diagnostic kits:<br><del>—ELISA based detection systems</del>                               | <i>Detail included in specification.</i>                    |
| 41 | <del>Mobile blood gas analyser</del>  | <i>Move to medical equipment.</i>                           |
| 42 | <del>Blood cell counters —Coulter counters</del>  | <i>Move to medical equipment.</i>                           |

|    | Description                                      | Notes   |
|----|--|---|
| 39 | <b>Entomological equipment</b>                   | <i>Detail, including butterfly net, in specification.</i> |
|    |  |   |
|    | PROTECTIVE EQUIPMENT                             |   |
| 1  | Protective clothing                              |   |
| 2  | Boots (disposable)                               |   |
| 3  | Protective gloves with liners                    |   |
| 4  | Protective masks (military type)                 |   |
| 5  | Spare <b>filter</b> canisters (military)         |   |
| 6  | Spare <b>filter</b> canisters (industrial)       |   |
| 7  | Surgical gloves                                  |   |
| 8  | Safety goggles                                   |   |
| 9  | Leather work gloves                              |   |
| 10 | Industrial safety helmet                         |   |
| 11 | Hearing protection                               |   |
| 12 | Cotton coveralls                                 |   |
| 13 | Disposable coveralls                             |   |
| 14 | UV protective glasses                            |   |
| 15 | Water bottle                                     |   |
| 16 | Flashlight explosion proof                       |   |
| 17 | First aid kits (personal)                        |   |
| 18 | Self-contained breathing apparatus (SCBA)        |   |
| 19 | Respirator (industrial/ <b>microbiological</b> ) |   |
| 20 | Equipment bags                                   |   |
| 21 | Mask fit test kit                                |   |
|    |  |   |

|    | Description  | Notes                           |
|----|--|---------------------------------|
| 22 | Cooling vest   |                                 |
| 23 | Cold weather gear  |                                 |
| 24 | Safety lantern   |                                 |
| 25 | Safety shoes   |                                 |
| 26 | Flammability/explosive/air quality monitor   |                                 |
| 27 | Mosquito nets  |                                 |
| 28 | Insect repellent   |                                 |
| 29 | Water filter kit   |                                 |
|    |  |                                 |
|    | MEDICAL EQUIPMENT  |                                 |
| 1  | General first aid kit <del>containing necessary antibiotics, vaccines and other medicine</del>                     | <i>Detail in specification.</i> |
| 2  | Patient monitoring equipment <del>—EKG, pulse oximeter</del>   | <i>Detail in specification.</i> |
| 3  | General medical examination equipment <del>such as sphygmomanometer, ophthalmoscope/otoscope, patella hammer</del> | <i>Detail in specification.</i> |
| 4  | <b>Mobile blood gas analyser</b>   | <i>From sampling section.</i>   |
| 5  | <b>Blood cell counter - Coulter counter</b>  | <i>From sampling section.</i>   |
| 6  | <b>Portable chemical pathology set</b>   |                                 |
|    |  |                                 |
|    | ADMINISTRATIVE EQUIPMENT   |                                 |
| 1  | Portable photo-copying machine   |                                 |
| 2  | Portable document scanner  |                                 |
| 3  | Portable document shredder   |                                 |
| 4  | Waterproof pens  |                                 |
| 5  | Tape measure (3 m, 30 m, 100 m)  |                                 |
| 6  | Callipers and steel ruler  |                                 |
|    |  |                                 |

|    | Description   | Notes   |
|----|---|---|
| 7  | Maps  | Geographic maps necessary for a specific field investigation procured for that investigation. |
| 8  | Graph paper, pencils and labels                                     |   |
| 9  | Calculator  |   |
| 10 | Computer (notebook) with printer/plotter and modem                  | <i>Software to include geographical information.</i>  |
| 11 | Satellite link telephones   |   |
| 12 | Portable fax machines   |   |
| 13 | Exterior extension cords  |   |
| 14 | Secure voice telephone  |   |
| 15 | Short-range radios  |   |
| 16 | Electric plug-socket adaptors                                       |   |
| 17 | Portable over-head projector  |   |
| 18 | Image transmission equipment  | This aspect needs further discussion.   |
|    |   |   |
|    | OTHER TECHNICAL EQUIPMENT   |   |
| 1  | Maintenance tool kit  |   |
| 2  | Equipment transport containers                                      |   |
| 3  | Global positioning system (GPS)                                     |   |
| 4  | Weighing equipment  |   |
| 5  | Polaroid-type camera with flash, zoom, macro lens systems and films |   |
| 6  | 35 mm camera with flash, zoom, macro lens systems and films         |   |
| 7  | Digital video camera - portable video player with tapes             |   |
| 8  | Audio (tape) recorder with tapes                                    |   |
|    |   |   |

|    | Description  | Notes   |
|----|--|---|
| 9  | Binoculars   |   |
| 10 | Data scope   |   |
| 11 | Night-vision scope   |   |
| 12 | Magnifying glass   |   |
| 13 | Rechargeable batteries (Ni-Cd) and battery chargers          |   |
| 14 | Shoulder bag   |   |
| 15 | Tool belt  |   |
| 16 | Compass  |   |
| 17 | Thermochromic tape packages                                  |   |
| 18 | Electrical power generators                                  |   |
| 19 | Barometer, anemometer, hygrometer with recording attachments | For use in establishing background conditions which might influence survival of microorganisms. |
| 20 | Wet bulb globe thermometer                                   |   |
| 21 | [Chemical agent monitor]                                     |   |
|    |  |   |
|    | NON-DESTRUCTIVE EVALUATION EQUIPMENT                         |   |
| 1  | Portable X-ray equipment                                     |   |
| 2  | Ultrasonic pulse echo  |   |