

**ANNEX 8  
EQUIPMENT FOR INSPECTIONS AND  
CONTINUOUS MONITORING ACTIVITIES**

- I. Characteristics of equipment for baseline data inspections, data update inspections, new facility inspections, suspect-site inspections, post-dispersal inspections of deployed mobile launchers of ICBMs and their associated missiles, conversion or elimination inspections, close-out inspections, and formerly declared facility inspections conducted pursuant to paragraphs 2, 3, 4, 5, 7, 8, 9, and 10 of Article XI of the Treaty.**
- A. *For the United States of America:*
1. *Linear Measurement Devices (quantity for each inspection team):*
    - (a) 5 30-meter measuring tapes;
    - (b) 10 3-meter measuring tapes;
    - (c) 2 3-meter measuring sticks;
    - (d) 10 Plumb bobs;
    - (e) 2 Plumb bob cords;
    - (f) 10 Plumb bob targets;
    - (g) 1 Roll of tape; and
    - (h) 1 Inspection suitcase.
  2. *Camera Equipment (quantity for each inspection team):*
    - (a) 2 Cameras with flash;
    - (b) 1 Lens;
    - (c) 1 Flash;
    - (d) 1 Exposure meter;
    - (e) 1 Spare film back for camera;
    - (f) 1 Tripod;
    - (g) 1 Cable release;
    - (h) 8 Packs of photographic film;
    - (i) 10 Spare batteries for cameras, flash, and exposure meter;
    - (j) 1 Range rod point;
    - (k) 1 Camera case;
    - (l) 1 Package of lens tissue;
    - (m) 1 Lens brush;
    - (n) 1 2.5-meter range rod; and
    - (o) 2 Lens filters--one ultraviolet haze, one amber.
  3. *Other Portable Equipment (quantity for each inspector):*
    - (a) 1 Flashlight (safety approved), with spare batteries and spare bulb;
    - (b) 1 Magnetic compass;
    - (c) 1 Pocket calculator with spare batteries;
    - (d) 1 Roll of tamper-indicating tape seals;
    - (e) 1 Thermoluminescent dosimeter; and
    - (f) 1 Ionization dosimeter.

4. *Other Portable Equipment (quantity for each inspection team):*

- (a) 2 *Ionization dosimeter charger units;*
- (b) 2 *Satellite system receiver sets, each provided by the inspected Party and consisting of the following:*
  - (i) 1 *Portable receiver;*
  - (ii) 1 *Direct current adapter (external);*
  - (iii) 16 *Spare batteries;*
  - (iv) 1 *Battery holder;*
  - (v) 1 *Rechargeable nickel-cadmium battery pack;*
  - (vi) 1 *External antenna with cable and antenna installation kit;*
  - (vii) 2 *Instruction manuals, one in English and one in Russian;*
  - (viii) 1 *Container; and*
  - (ix) 1 *Equipment bag.*
- (c) *Set of radiation detection equipment consisting of the following:*
  - (i) 2 *Neutron detectors, including preamplifiers with signal/power cables (counting time - 150 seconds);*
  - (ii) 2 *Electronic counters with instruction manual;*
  - (iii) 10 *Plastic bags for weather protection;*
  - (iv) 1 *Americium-241-Lithium neutron source for calibration, emitting approximately 3000 neutrons per second, precalibrated by the inspecting Party;*
  - (v) 1 *Tool kit;*
  - (vi) 30 *Spare batteries, miscellaneous sizes;*
  - (vii) 1 *Stand for neutron detector;*
  - (viii) 1 *Measuring tape;*
  - (ix) 2 *Battery-powered lights;*
  - (x) 3 *Programmable calculators, with instruction manual;*
  - (xi) 2 *Thermometers;*
  - (xii) 1 *Stand for calibration source; and*
  - (xiii) 4 *Instruction manuals, two in English and two in Russian.<sup>1</sup>*

B. *For the Union of Soviet Socialist Republics:*1. *Linear Measurement Devices (quantity for each inspection team):*

- (a) 5 *30-meter measuring tapes;*
- (b) 5 *5-meter measuring tapes;*
- (c) 2 *3-meter measuring sticks;*
- (d) 4 *Plumb bobs;*
- (e) 2 *Plumb bob cords;*
- (f) 4 *Plumb bob targets;*

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<sup>1</sup> JCIC Agreement No. 40, Article One, Paragraph 1.

- (g) 1 Roll of tape; and
- (h) 1 Inspection suitcase.

2. Camera Equipment (quantity for each inspection team):

- (a) 2 Cameras with flash;
- (b) 1 Tripod;
- (c) 1 Exposure meter;
- (d) 1 Lens;
- (e) 1 Flash;
- (f) 1 Spare film back for camera;
- (g) 1 Cable release;
- (h) 2 Packs of photographic film;
- (i) 10 Spare batteries for cameras, flash, and exposure meter;
- (j) 1 Range rod point;
- (k) 1 Camera case;
- (l) 1 Package of lens tissue;
- (m) 1 Lens brush;
- (n) 1 3-meter range rod; and
- (o) 2 Lens filters--one ultraviolet haze, one amber.

3. Other Portable Equipment (quantity for each inspector):

- (a) 1 Flashlight (safety approved), with spare batteries and spare bulb;
- (b) 1 Magnetic compass;
- (c) 1 Pocket calculator with spare batteries;
- (d) 1 Roll of tamper-indicating tape seals;
- (e) 1 Ruler; and
- (f) 1 Thermoluminescent dosimeter.

4. Other Portable Equipment (quantity for each inspection team):

- (a) 2 Satellite system receiver sets provided by the inspected Party, each consisting of the following:
  - (i) 1 Portable receiver;
  - (ii) 1 Direct current adapter (external);
  - (iii) 16 Spare batteries;
  - (iv) 1 Battery holder;
  - (v) 1 Rechargeable nickel-cadmium battery pack;
  - (vi) 1 External antenna with cable and antenna installation kit;
  - (vii) 2 Instruction manuals, one in English and one in Russian;
  - (viii) 1 Container; and
  - (ix) 1 Equipment bag.
- (b) Set of radiation detection equipment consisting of the following:

- (i) 1 Neutron detector, including preamplifier with signal/power cables (counting time - 1000 seconds or 150 seconds);
- (ii) 1 Registering device;
- (iii) 1 Americium-241-Lithium neutron source for calibration, emitting approximately 3000 neutrons per second, precalibrated by the inspecting Party;
- (iv) 1 Charging unit;
- (v) 1 Spare rechargeable battery;
- (vi) 1 Measuring tape;
- (vii) 1 Battery-powered light;
- (viii) 1 Stand for neutron detector;
- (ix) 1 Calculator;
- (x) 1 Stand for calibration source;
- (xi) 2 Instruction manuals, one in English and one in Russian.<sup>1</sup>

**II. Characteristics of equipment for reentry vehicle inspections conducted pursuant to paragraph 6 of Article XI of the Treaty.**

**A. For the United States of America:**

**1. Portable Equipment (quantity for each inspector):**

- (a) 1 3-meter measuring tape;
- (b) 1 Flashlight (safety approved), with spare batteries and spare bulb;
- (c) 1 Pocket calculator with spare batteries;
- (d) 1 Magnetic compass;
- (e) 1 Roll of tamper-indicating tape seals;
- (f) 1 Thermoluminescent dosimeter; and
- (g) 1 Ionization dosimeter.

**2. Other Portable Equipment (quantity for each inspection team):**

- (a) 2 Ionization dosimeter charger units;
- (b) 2 Satellite system receiver sets, each provided by the inspected Party and consisting of the following:
  - (i) 1 Portable receiver;
  - (ii) 1 Direct current adapter (external);
  - (iii) 16 Spare batteries;
  - (iv) 1 Battery holder;
  - (v) 1 Rechargeable nickel-cadmium battery pack;
  - (vi) 1 External antenna with cable and antenna installation kit;
  - (vii) 2 Instruction manuals, one in English and one in Russian;

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<sup>1</sup> JCIC Agreement No. 40, Article Two, Paragraph 1.

- (viii) 1 Container; and
- (ix) 1 Equipment bag.

(c) Set of radiation detection equipment consisting of the following:

- (i) 2 Neutron detectors, including preamplifiers with signal/power cables (counting time -150 seconds);
- (ii) 2 Electronic counters, with instruction manual;
- (iii) 10 Plastic bags for weather protection;
- (iv) 1 Americium-241-Lithium neutron source for calibration, emitting approximately 3000 neutrons per second, precalibrated by the inspecting Party;
- (v) 1 Tool kit;
- (vi) 30 Spare batteries, miscellaneous sizes;
- (vii) 1 Stand for neutron detector;
- (viii) 1 Measuring tape;
- (ix) 2 Battery-powered lights;
- (x) 3 Programmable calculators, with instruction manual;
- (xi) 2 Thermometers;
- (xii) 1 Stand for calibration source; and
- (xiii) 4 Instruction manuals, two in English and two in Russian.<sup>1</sup>

B. For the Union of Soviet Socialist Republics:

1. Portable Equipment (quantity for each inspector):

- (a) 1 5- meter measuring tape;
- (b) 1 Flashlight (safety approved), with spare batteries and spare bulb;
- (c) 1 Magnetic compass;
- (d) 1 Pocket calculator with spare batteries;
- (e) 1 Roll of tamper-indicating tape seals;
- (f) 1 Ruler;
- (g) 1 Thermoluminescent dosimeter;
- (h) 1 Curvometer; and
- (i) 1 Pair of dividers.

2. Other Portable Equipment (quantity for each inspection team):

- (a) 2 Satellite system receiver sets provided by the inspected Party, each consisting of the following:
  - (i) 1 Portable receiver;
  - (ii) 1 Direct current adapter (external);
  - (iii) 16 Spare batteries;
  - (iv) 1 Battery holder;
  - (v) 1 Rechargeable nickel-cadmium battery pack;

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<sup>1</sup> JCIC Agreement No. 40, Article One, Paragraph 2.

- (vi) 1 External antenna with cable and antenna installation kit;
- (vii) 2 Instruction manuals, one in English and one in Russian;
- (viii) 1 Container; and
- (ix) 1 Equipment bag.

b) Set of radiation detection equipment consisting of the following:

- (i) 1 Neutron detector, including preamplifier with signal/power cables (counting time - 1000 seconds or 150 seconds);
- (ii) 1 Registering device;
- (iii) 1 Americium-241-Lithium neutron source for calibration, emitting approximately 3000 neutrons per second, precalibrated by the inspecting Party;
- (iv) 1 Charging unit;
- (v) 1 Spare rechargeable battery;
- (vi) 1 Measuring tape;
- (vii) 1 Battery-powered light;
- (viii) 1 Stand for neutron detector;
- (ix) 1 Calculator;
- (x) 1 Stand for calibration source; and
- (xi) 2 Instruction manuals, one in English and one in Russian.<sup>1</sup>

**III. Characteristics of equipment for inspections during technical characteristics exhibitions conducted pursuant to paragraph 11 of Article XI of the Treaty.**

A. For the United States of America:

1. Linear Measurement Devices (quantity for each inspection team):

- (a) 3 Measuring tape clamps;
- (b) 2 Tape tensioning scales;
- (c) 2 Magnifying glasses;
- (d) 2 Hand levels;
- (e) 2 String line levels;
- (f) 2 Calipers with micrometer screw;
- (g) 2 Combination squares;
- (h) 5 30-meter measuring tapes;
- (i) 10 3-meter measuring tapes;
- (j) 2 3-meter measuring sticks;
- (k) 3 Plumb bobs;
- (l) 1 Plumb bob cord;
- (m) 10 Plumb bob targets;
- (n) 3 Rolls of tape;

<sup>1</sup> JCIC Agreement No. 40, Article Two, Paragraph 2.

- (o) 3 Log books;
- (p) 2 Rod levels;
- (q) 2 2.5-meter range rods; and
- (r) 1 Tripod.

2. Camera Equipment (quantity for each inspection team):

- (a) 2 Cameras with flash;
- (b) 1 Lens;
- (c) 1 Flash;
- (d) 1 Exposure meter;
- (e) 1 Spare film back for camera;
- (f) 1 Tripod;
- (g) 1 Cable release;
- (h) 8 Packs of photographic film;
- (i) 10 Spare batteries for cameras, flash, and exposure meter;
- (j) 1 Range rod point;
- (k) 1 Camera case;
- (l) 1 Package of lens tissue;
- (m) 1 Lens brush;
- (n) 1 2.5-meter range rod; and
- (o) 2 Lens filters--one ultraviolet haze, one amber.

3. Other Portable Equipment (quantity for each inspector):

- (a) 1 Flashlight (safety approved), with spare batteries and spare bulb;
- (b) 1 Magnetic compass;
- (c) 1 Pocket calculator with spare batteries;
- (d) 1 Roll of tamper-indicating tape seals;
- (e) 1 Thermoluminescent dosimeter; and
- (f) 1 Ionization dosimeter.

4. Other Portable Equipment (quantity for each inspection team):

- (a) 2 Ionization dosimeter charger units.

5. Weighing Devices (as agreed by the Parties within the framework of the Joint Compliance and Inspection Commission for the purpose of confirming the launch weight of an ICBM or SLBM of a new type).<sup>1</sup>

B. For the Union of Soviet Socialist Republics:

1. Linear Measurement Devices (quantity for each inspection team):

- (a) 5 30-meter measuring tapes;
- (b) 5 5-meter measuring tapes;
- (c) 2 3-meter measuring sticks;

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<sup>1</sup> JCIC Agreement No. 40, Article One, Paragraph 3.

- (d) 4 Plumb bobs;
- (e) 2 Plumb bob cords;
- (f) 4 Plumb bob targets;
- (g) 1 Roll of tape; and
- (h) 1 Inspection suitcase.

2. Camera Equipment (quantity for each inspection team):

- (a) 2 Cameras with flash;
- (b) 1 Tripod;
- (c) 1 Exposure meter;
- (d) 1 Lens;
- (e) 1 Flash;
- (f) 1 Spare film back for camera;
- (g) 1 Cable release;
- (h) 2 Packs of photographic film;
- (i) 10 Spare batteries for cameras, flash, and exposure meter;
- (j) 1 Range rod point;
- (k) 1 Camera case;
- (l) 1 Package of lens tissue;
- (m) 1 Lens brush;
- (n) 1 3-meter range rod; and
- (o) 2 Lens filters--one ultraviolet haze, one amber.

3. Other Portable Equipment (quantity for each inspector):

- (a) 1 Flashlight (safety approved), with spare batteries and spare bulb;
- (b) 1 Magnetic compass;
- (c) 1 Pocket calculator with spare batteries;
- (d) 1 Roll of tamper-indicating tape seals;
- (e) 1 Ruler; and
- (f) 1 Thermoluminescent dosimeter.

4. Weighing device (as agreed by the Parties within the framework of the Joint Compliance and Inspection Commission for the purpose of confirming the launch weight of an ICBM or SLBM of a new type).<sup>1</sup>

**IV. Characteristics of equipment for inspections during heavy bomber distinguishability exhibitions and heavy bomber baseline exhibitions conducted pursuant to paragraphs 12 and 13 of Article XI of the Treaty and during exhibitions of long-range non-nuclear ALCMs conducted pursuant to notifications provided in accordance with Section VII of the Notification Protocol.<sup>2</sup>**

A. For the United States of America:

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<sup>1</sup> JCIC Agreement No. 40, Article Two, Paragraph 3.

<sup>2</sup> JCIC Agreement No. 25, Article One, Paragraph 1.

1. *Linear Measurement Devices (quantity for each inspection team):*

- (a) 3 *Measuring tape clamps;*
- (b) 2 *Tape tensioning scales;*
- (c) 2 *Magnifying glasses;*
- (d) 2 *Hand levels;*
- (e) 2 *String line levels;*
- (f) 2 *Calipers with micrometer screw;*
- (g) 2 *Combination squares;*
- (h) 5 *30-meter measuring tapes;*
- (i) 10 *3-meter measuring tapes;*
- (j) 2 *3-meter measuring sticks;*
- (k) 3 *Plumb bobs;*
- (l) 1 *Plumb bob cord;*
- (m) 10 *Plumb bob targets;*
- (n) 3 *Rolls of tape;*
- (o) 3 *Log books;*
- (p) 2 *Rod levels;*
- (q) 2 *2.5- meter range rods; and*
- (r) 1 *Tripod.*

2. *Camera Equipment (quantity for each inspection team):*

- (a) 2 *Cameras with flash;*
- (b) 1 *Lens;*
- (c) 1 *Flash;*
- (d) 1 *Exposure meter;*
- (e) 1 *Spare film back for camera;*
- (f) 1 *Tripod;*
- (g) 1 *Cable release;*
- (h) 8 *Packs of photographic film;*
- (i) 10 *Spare batteries for cameras, flash, and exposure meter;*
- (j) 1 *Range rod point;*
- (k) 1 *Camera case;*
- (l) 1 *Package of lens tissue;*
- (m) 1 *Lens brush;*
- (n) 1 *2.5-meter range rod; and*
- (o) 2 *Lens filters--one ultraviolet haze, one amber.*

3. *Other Portable Equipment (quantity for each inspector):*

- (a) 1 *Flashlight (safety approved), with spare batteries and spare bulb;*
- (b) 1 *Magnetic compass;*
- (c) 1 *Pocket calculator with spare batteries;*
- (d) 1 *Roll of tamper-indicating tape seals;*
- (e) 1 *Thermoluminescent dosimeter; and*
- (f) 1 *Ionization dosimeter.*

4. *Other Portable Equipment (quantity for each inspection team):*

- (a) 2 *Ionization dosimeter charger units; and*
- (b) *Set of radiation detection equipment consisting of the following:*
  - (i) 2 *Neutron detectors, including preamplifiers with signal/power cables (counting time - 150 seconds);*
  - (ii) 2 *Electronic counters, with instruction manual;*
  - (iii) 10 *Plastic bags for weather protection;*
  - (iv) 1 *Americium-241-Lithium neutron source for calibration, emitting approximately 3000 neutrons per second, precalibrated by the inspecting Party;*
  - (v) 1 *Tool kit;*
  - (vi) 30 *Spare batteries, miscellaneous sizes;*
  - (vii) 1 *Stand for neutron detector;*
  - (viii) 1 *Measuring tape;*
  - (ix) 2 *Battery-powered lights;*
  - (x) 3 *Programmable calculators with instruction manual;*
  - (xi) 2 *Thermometers;*
  - (xii) 1 *Stand for calibration source; and*
  - (xiii) 4 *Instruction manuals, two in English and two in Russian.<sup>1</sup>*

B. *For the Union of Soviet Socialist Republics:*

1. *Linear Measurement Devices (quantity for each inspection team):*

- (a) 5 *30-meter measuring tapes;*
- (b) 5 *5-meter measuring tapes;*
- (c) 2 *3-meter measuring sticks;*
- (d) 4 *Plumb bobs;*
- (e) 2 *Plumb bob cords;*
- (f) 4 *Plumb bob targets;*
- (g) 1 *Roll of tape; and*
- (h) 1 *Inspection suitcase.*

2. *Camera Equipment (quantity for each inspection team):*

- (a) 2 *Cameras with flash;*
- (b) 1 *Tripod;*
- (c) 1 *Exposure meter;*
- (d) 1 *Lens;*
- (e) 1 *Flash;*
- (f) 1 *Spare film back for camera;*
- (g) 1 *Cable release;*
- (h) 2 *Packs of photographic film;*
- (i) 10 *Spare batteries for camera, flash, and exposure meter;*

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<sup>1</sup> JCIC Agreement No. 40, Article One, Paragraph 4.

- (j) 1 Range rod point;
- (k) 1 Camera case;
- (l) 1 Package of lens tissue;
- (m) 1 Lens brush;
- (n) 1 3-meter range rod; and
- (o) 2 Lens filters--one ultraviolet haze, one amber.

3. Other Portable Equipment (quantity for each inspector):

- (a) 1 Flashlight (safety approved), with spare batteries and spare bulb;
- (b) 1 Magnetic compass;
- (c) 1 Pocket calculator with spare batteries;
- (d) 1 Roll of tamper-indicating tape seals;
- (e) 1 Ruler; and
- (f) 1 Thermoluminescent dosimeter.

4. Other Portable Equipment (quantity for each inspection team):

- (a) Set of radiation detection equipment consisting of the following:
  - (i) 1 Neutron detector, including preamplifier with signal/power cables (counting time - 1000 seconds or 150 seconds);
  - (ii) 1 Registering device;
  - (iii) 1 Americium-241-Lithium neutron source for calibration, emitting approximately 3000 neutrons per second, precalibrated by the inspecting Party;
  - (iv) 1 Charging unit;
  - (v) 1 Spare rechargeable battery;
  - (vi) 1 Measuring tape;
  - (vii) 1 Battery-powered light;
  - (viii) 1 Stand for neutron detector;
  - (ix) 1 Calculator;
  - (x) 1 Stand for calibration source;
  - (xi) 2 Instruction manuals, one in English and one in Russian.<sup>1</sup>

**V. Characteristics of equipment for continuous monitoring activities conducted pursuant to paragraph 14 of Article XI of the Treaty.**

A. For the United States of America:

1. Tape measures, measuring sticks, and other devices as agreed between the Parties for measuring dimensions.
2. Camera equipment capable of producing instant development photographic prints, with tripod and measuring sticks as agreed by the Parties.

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<sup>1</sup> JCIC Agreement No. 40, Article Two, Paragraph 4.

3. Flashlights.
4. Other equipment as agreed by the Parties.
5. Engineering site survey equipment:
  - (a) 2 Theodolites, levels, survey chains, survey rods, and stakes;
  - (b) 2 Light meters;
  - (c) Engineering tape and stakes, as necessary;
  - (d) 1 Measuring Wheel;
  - (e) 6 Measuring tapes, two of each length (3, 30, and 100 meter);
  - (f) Topographic maps, as necessary;
  - (g) 2 Water sampling kits;
  - (h) 2 Portable computers, printers, and accessories;
  - (i) 1 Portable copier;
  - (j) 1 Portable facsimile machine;
  - (k) 2 Video cameras with portable recorders;
  - (l) 1 Video cassette recorder, with video cassettes, and television monitor;
  - (m) 2 Cameras with flash; and
  - (n) Hand tools (hammers, pliers, screwdrivers, etc.) and expendable materials, as required.

*B. For the Union of Soviet Socialist Republics:*

*1. Linear Measurement Devices (quantity for each inspection team):*

- (a) 5 30-meter measuring tapes;
- (b) 5 5-meter measuring tapes;
- (c) 2 3-meter measuring sticks;
- (d) 4 Plumb bobs;
- (e) 2 Plumb bobs cords;
- (f) 4 Plumb bob targets;
- (g) 1 Roll of tape; and
- (h) 1 Inspection suitcase.

*2. Camera Equipment (quantity for each inspection team):*

- (a) 2 Cameras with flash;
- (b) 1 Tripod;
- (c) 1 Exposure meter;
- (d) 1 Lens;
- (e) 1 Flash;
- (f) 1 Spare film back for camera;
- (g) 1 Cable release;
- (h) 2 Packs of photographic film;
- (i) 10 Spare batteries for cameras, flash, and exposure meter;
- (j) 1 Range rod point;
- (k) 1 Camera case;

- (l) 1 Package of lens tissue;
- (m) 1 Lens brush;
- (n) 1 3-meter range rod; and
- (o) 2 Lens filters--one ultraviolet haze, one amber.

3. Other Portable Equipment (quantity for each inspector):

- (a) 1 Flashlight (safety approved), with spare batteries and spare bulb;
- (b) 1 Magnetic compass;
- (c) 1 Pocket calculator with spare batteries;
- (d) 1 Roll of tamper-indicating tape seals;
- (e) 1 Ruler; and
- (f) 1 Thermoluminescent dosimeter.

4. Engineering Site Survey Equipment:

- (a) 2 Theodolites, levels, measuring sticks, and level markers;
- (b) 2 Photo-range finders and reflectors;
- (c) 10 Measuring tapes or tape measures, two of each length (2, 3, 10, 30, and 100 meter);
- (d) 1 Field laboratory (portable) for water sampling;
- (e) 1 Digital multimeter;
- (f) 2 Avometers;
- (g) 1 Photometer;
- (h) Topographic maps, as required;
- (i) 1 Fence vibration meter;
- (j) 1 Magnetograph;
- (k) 1 Oscillograph;
- (l) 1 Portable computer;
- (m) 1 Portable copier;
- (n) 2 Cameras with flash; and
- (o) Hand Tools (hammers, pliers, screwdrivers, etc.) and expendable materials as required.<sup>1</sup>

## VI. Methods of use of equipment.

A. The Parties agree to use linear measurement devices in the following manner:

1. Linear measurement devices shall be used to determine length, width, and height of objects by measuring the straight-line distance between the extreme points of these objects or, if required, between tangents drawn perpendicular to the direction of measurement from the outside points of curved surfaces.

2. The diameter of any cylindrical object shall be determined by measuring the circumference, by directly measuring the diameter, or by measuring the

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<sup>1</sup> JCIC Agreement No. 40, Article Two, Paragraph 5.

distance between parallel lines that are vertical tangents to the cylindrical surface of the object and that lie in a plane perpendicular to the axis of the object. Such measurements shall be taken at several points along the length of that object.

3. In determining the dimensions of an object, each dimension shall be measured at least two times. If the results of the first two measurements are within one percent of each other, then the results of these two measurements shall be averaged to determine the dimension of the object. If the results of the first two measurements are not within one percent of each other, additional measurements shall be taken until results from two measurements are obtained that are within one percent of each other. The results of these two measurements shall be averaged to determine the dimension of the object.

B. The Parties agree to use cameras in the following manner:

1. Before a member of the in-country escort takes photographs, inspectors shall have the right to determine by observing through the viewfinder, that the object is in the camera's field of view and is in focus. The inspected Party may take test photographs, which shall be the property of the inspected Party.

2. While taking photographs, the inspected Party shall, at the direction of inspectors or monitors place a measuring stick or equivalent measuring device perpendicular to the ground and directly against the object being photographed; the scale or length of such a measuring stick or equivalent measuring device may be verified and recorded in the inspection report or continuous monitoring report, if the inspection team or monitoring team so desires.

3. The Parties understand that the procedures agreed upon with respect to the taking of photographs shall apply at all inspection sites, and at facilities subject to continuous monitoring and monitored facilities.

C. The Parties agree to use engineering site survey equipment in the following manner:

1. The portable facsimile machine shall be stored within a secure structure or room at the facility subject to continuous monitoring and the inspecting Party may provide a container that is locked by locks and sealed by seals belonging to the inspecting Party. The method of storage shall require the presence of representatives of both Parties for access to the portable facsimile machine. The portable facsimile machine shall be operated by a member of the monitoring team in the presence of a member of the in-country escort. The inspected Party shall have the right to examine the information to be transmitted, prior to the use of the portable facsimile machine, in order to ascertain that it does not contain images that are not connected with the purposes of the engineering site survey.

2. At the request of the inspecting Party, the video camera and the portable recorder, and photographic cameras shall be used by a member of the in-country escort.

D. The Parties shall agree within the framework of the Joint Compliance and Inspection Commission on methods of use for weighing devices for the purpose of confirming the launch weight of an ICBM or SLBM of a new type.

E. The Parties agree to use satellite system receivers provided by the inspected Party to confirm the geographic coordinates of silo launchers of ICBMs during reentry vehicle inspections and during the inspection of a silo launcher of ICBMs from which an ICBM has been removed but which continues to be considered to contain an ICBM in accordance with subparagraph 2(b) or 6(d) of Article III of the Treaty during baseline data inspections, data update inspections, and new facility inspections. When providing receivers for receiving signals from the satellite system that are used for determining the coordinates of such a silo launcher of ICBMs, the inspected Party shall ensure that such receivers are capable of providing such coordinate information at any time during the inspection for any silo launcher of ICBMs located on the territory of the inspected Party. The Parties agree to use such receivers in the following manner:

1. *At the point of entry, the inspection team leader or an authorized representative of such a team shall have the right to confirm, in accordance with the following procedures, that two satellite system receivers provided by the inspected Party are operable:*

- (a) The first inspection team arriving at each point of entry for which there is at least one associated facility with silo launchers of ICBMs subject to inspection pursuant to paragraph 2,3,4 or 6 of Article XI of the Treaty shall have the right to bring to that point of entry two satellite system receivers for the purpose of determining the geographic coordinates for four reference points. These reference points shall be proposed by the inspected Party, shall be within 20 kilometers of the airport of the point of entry, and shall be separated from each other by at least two kilometers.*
- (b) For the purpose of comparing the reading of one satellite system receiver with the reading of another satellite system receiver, the term "agree" shall mean that the reading of one satellite system receiver differs from the reading of the other satellite system receiver by no more than 12 seconds in both latitude and longitude.*
- (c) For the purpose of confirming the operability of a satellite system receiver at the point of entry, the term "agree" shall mean that the reading of the satellite system receiver differs from the agreed geographic coordinates of the reference point by no more than 12 seconds in both latitude and longitude.*
- (d) Determination of the agreed geographic coordinates of reference points used at a point of entry for testing the operability of satellite system receivers shall be conducted in accordance with the following procedures:*
  - (i) At each proposed reference point, the inspection team leader or an authorized representative of such a team, and a member*

*of the in-country escort shall use two satellite system receivers of the inspecting Party and two satellite system receivers of the inspected party, respectively, to determine geographic coordinate values. The inspected Party shall have the right to substitute a properly operating satellite system receiver for a malfunctioning satellite system receiver provided by the inspected Party. However, no more than two satellite system receivers of the inspected Party may be used for the determination of agreed geographic coordinates for a reference point as described in subparagraphs (d)(ii) and (d)(iii) below;*

- (ii) If at least three of the four latitude values thus obtained agree with each other, all of these latitude values that agree with at least two other of the four latitude values, shall be averaged, and that average shall be the agreed latitude value of the reference point;*
- (iii) If at least three of the four longitude values thus obtained agree with each other, all of these longitude values that agree with at least two other of the four longitude values, shall be averaged, and that average shall be the agreed longitude value of the reference point;*
- (iv) Agreed latitude values and agreed longitude values of the reference point thus obtained shall be recorded to the nearest second and shall be the agreed geographic coordinates of each reference point for the point of entry. A physical description of the reference point shall also be recorded for each reference point. The inspected Party shall provide notification of the determination of agreed geographic coordinates of reference points in accordance with paragraph 28 of Section III of this Protocol;*
- (v) If agreed geographic coordinates for four reference points cannot be determined after the procedures provided for in this subparagraph have been attempted at no fewer than six proposed points, all agreed coordinates shall be discarded and the procedures provided for in this subparagraph shall be repeated when an inspection team next arrives at this point of entry to conduct an inspection.*
- (e) The operability of satellite system receivers shall be tested at each point of entry for which there is at least one associated facility with silo launchers of ICBMs subject to inspection pursuant to paragraph 2, 3, 4 or 6 of Article XI of the Treaty. After the baseline data inspection period, operability of the inspected Party's satellite system receivers may be tested at such points of entry, at the discretion of the inspection team leader, for all inspections, except for inspections conducted pursuant to paragraph 8 of Article XI of the Treaty, prior to the departure of the inspection team for the*

*inspection site, at a time agreed by the inspection team leader, and a member of the in-country escort. The time shall be agreed to as soon as possible following the arrival of the inspection team at the point of entry. Testing shall be conducted in accordance with the procedures contained in subparagraph (g) of this paragraph.*

- (f) Only for inspections conducted during the baseline data inspection period, testing of the operability of the inspected Party's satellite system receivers shall be conducted in accordance with the procedures contained in subparagraph (g) of this paragraph:
  - (i) either after the inspection team leader has made the designation, provided for in paragraph 15 of Section V of this Protocol, of the type of inspection and inspection site, provided that the use of satellite system receivers is permitted for the designated type of inspection and inspection site; or*
  - (ii) prior to the designation by the inspection team leader, provided for in paragraph 15 of Section V of this Protocol, of the type of inspection and inspection site, at a time agreed to by the inspection team leader and a member of the in-country escort, provided that the inspection team leader declares the inspecting Party's intent to use the satellite system receivers during the first or a sequential inspection for which satellite system receivers may be used.**
- (g) The operability of each of the inspected Party's satellite system receivers shall be tested at two reference points. These two reference points shall be selected from the four reference points with agreed geographic coordinates. The first reference point shall be selected by a member of the in-country escort, and the second reference point shall be selected by the inspection team leader or an authorized representative of such a team. A member of the in-country escort shall accompany the inspectors to each reference point and shall bring the inspected Party's satellite system receivers to that reference point:
  - (i) In order for an inspected Party's satellite system receiver to be confirmed to be operable, at each of the two reference points the reading of the satellite system receiver must agree with the agreed geographic coordinates of that reference point;*
  - (ii) If, at either of the two reference points, the reading of an inspected Party's satellite system receiver does not agree with the agreed geographic coordinates of the reference point, a member of the in-country escort shall take another reading using that satellite system receiver. If, after at least two additional attempts, the reading of the satellite system receiver still does not agree with the agreed geographic coordinates, the inspected Party shall replace the satellite system receiver. The replacement satellite system receiver shall be tested in**

*accordance with the procedures contained in subparagraph (g) of this paragraph. The testing of the inspected Party's satellite system receivers shall continue until the inspected Party has provided two satellite system receivers that are confirmed to be operable or until at least four different satellite system receivers have been tested.*

- (iii) If the inspected Party is unable to provide two satellite system receivers whose operability has been confirmed in accordance with the procedures contained in subparagraph (g) of this paragraph, this fact shall be recorded in the inspection report and the inspection shall proceed.*
- (h) The inspected Party shall have the right to change the reference points for use in testing the operability of satellite system receivers. No more than two reference points may be changed at any one time, unless otherwise agreed. Agreed geographic coordinates for the new reference point shall be determined using the procedures in subparagraph 1(d) of this Subsection when an inspection team next arrives at this point of entry to conduct an inspection after the proposed effective date of a change specified in the notification provided by the inspected Party in accordance with paragraph 29 of Section III of this Protocol. The new reference point shall become effective upon determination of its agreed geographic coordinates.<sup>1</sup>*

2. After confirming that the two receivers are functioning, a member of the in-country escort, in the presence of the inspection team leader, shall place the receivers in a case or container that shall be sealed by the inspection team leader and provided to a member of the in-country escort.

3. The sealed case or container shall remain in the custody of a member of the in-country escort until the arrival of the inspection team at the silo launcher of ICBMs designated by the inspection team leader.

4. *Upon arrival of the inspection team or subgroup of the inspection team at a silo launcher of ICBMs designated for inspection, inspectors shall use satellite system receivers that have been provided by the inspected Party to determine the geographic coordinates of such silo launchers of ICBMs in accordance with the following procedures:*

- (a) The specific location where the readings of the satellite system receiver are taken shall be selected by a member of the in-country escort in such a way that, if possible, the designated silo launcher of ICBMs can be seen from that location;*
- (b) While at this location, specified in accordance with subparagraph (a) of this paragraph, the inspectors shall examine the container and the seal placed on the container to determine whether the seal*

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<sup>1</sup> JCIC Agreement No. 19, Article Two, Paragraph 1.

*is intact and whether the container has been tampered with. If there is evidence that the seal has been broken or that the container has been tampered with, this fact shall be recorded in the inspection report and the inspection shall continue;*

- (c) A member of the in-country escort shall open the container and an inspector shall select one of the two satellite system receivers provided by the inspected Party, the operability of which has been confirmed in accordance with the procedures provided for in subparagraph 1(g) of this Subsection;*
- (d) For the purpose of comparing the reading of a satellite system receiver with the geographic coordinates of a designated silo launcher of ICBMs, listed in the Agreement on Exchange of Geographic Coordinates and Site Diagrams, the term "agree" shall mean that:*

  - (i) if the geographic coordinates are expressed to the nearest second, the reading of the satellite system receiver differs from the geographic coordinates by no more than 12 seconds in both latitude and longitude;*
  - (ii) if the geographic coordinates are expressed to the nearest minute, the reading of the satellite system receiver differs from the geographic coordinates by no more than 60 seconds in both latitude and longitude;*
- (e) An inspector shall take readings using the selected satellite system receiver. If the satellite system receiver readings and the geographic coordinates for the location of the designated silo launcher of ICBMs, listed in the Agreement on Exchange of Geographic Coordinates and Site Diagrams, agree, then the silo launcher of ICBMs shall be considered to be the designated silo launcher of ICBMs and the coordinates determined by the satellite system receiver shall be recorded in the inspection report despite the fact that the satellite system receiver readings might also agree with geographic coordinates for the locations of other nearby silo launchers of ICBMs, listed in the Agreement on Exchange of Geographic Coordinates and Site Diagrams. If the satellite system receiver readings at the location selected by a member of the in-country escort do not agree with the geographic coordinates for the designated silo launcher of ICBMs, listed in the Agreement on Exchange of Geographic Coordinates and Site Diagrams, then inspectors shall use the second satellite system receiver. If a satisfactory result cannot be obtained with either of the two satellite system receivers, then a member of the in-country escort shall choose another location closer to the silo launcher of ICBMs where an inspector shall take readings using a satellite system receiver. If, after using both of the satellite system receivers at any of the locations chosen by a member of the in-country escort, inspectors establish that the readings of neither satellite system receiver agree*

*with the geographic coordinates for this designated silo launcher of ICBMs, and the inspectors are thus unable to ascertain that the silo launcher of ICBMs is the designated silo launcher of ICBMs, this fact shall be recorded in the inspection report and the inspection shall continue;*

- (f) Upon completion of the satellite system receivers' use, a member of the in-country escort, in the presence of inspectors, shall place the satellite system receivers in a container. A representative of the inspection team shall seal the container and provide the container to a member of the in-country escort.<sup>1</sup>*

F. The Parties agree to use radiation detection equipment in the following manner:

1. Radiation detection equipment shall be used to measure nuclear radiation levels in order to demonstrate that objects declared to be non-nuclear are non-nuclear.

2. The radiation detection equipment shall be provided by the inspecting Party, unless otherwise agreed by the Parties.

3. *For an inspection conducted pursuant to paragraph 2, 3, 4, 6 or 12 of Article XI of the Treaty, the Parties shall use radiation detection equipment in accordance with the procedures provided for in Annex 15 to this Protocol.*

4. *During an inspection conducted in accordance with Section III or IV of Annex 15 to this Protocol, measurements of the radiation level shall be taken by the in-country escort in the presence of inspectors.<sup>2</sup>*

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<sup>1</sup> JCIC Agreement No. 19, Article Two, Paragraph 2.

<sup>2</sup> JCIC Agreement No. 34, Article Two, Paragraph 1.