
**ANNEX J
OTHER REQUIREMENTS**

1. The Parties shall provide, as a category of data, geographic coordinates relating to the data contained in this Memorandum. All geographic coordinates provided for in this Memorandum shall be expressed in latitude and longitude to the nearest minute, except in cases where two or more locations are within one minute of latitude and longitude of each other, and are of the same type or have the same appearance; in such cases, the latitude and longitude shall be expressed to include seconds. Geographic coordinates for silos used as launch control centers, other launch control centers, and silo launchers of ICBMs located in a silo launcher group at an ICBM base shall be expressed to the nearest minute. In specifying geographic coordinates, each Party shall use the system of coordinates commonly employed by it.

2. The geographic coordinates for training facilities specified in Annex A to this Memorandum and for test ranges shall be specified as follows:

- (a) If such a training facility or a test range comprises a single area of less than ten square kilometers, the geographic coordinates of its reference point shall be provided pursuant to this Memorandum and shall be specified on the site diagram, but if such an area is ten square kilometers or greater, the geographic coordinates of points on its perimeter, connected by straight or curved lines to delineate boundaries, shall be specified using, where possible, man-made or natural features such as roads, fences, railroad tracks, or rivers.
- (b) If such a training facility or a test range comprises a number of non-contiguous areas, the geographic coordinates of the reference point for the entire training facility or test range shall be provided pursuant to this Memorandum and shall be specified on the site diagram. In addition, for each of its separate areas of less than ten square kilometers, the geographic coordinates of its reference point shall be specified on the site diagram, but if such an area is ten square kilometers or greater, the geographic coordinates of points on its perimeter, connected as described in subparagraph (a) of this paragraph, shall be specified.

3. If coordinates of two or more locations are specified as provided for in paragraph 1 of this Annex, but the other Party considers that these locations have the same appearance, notification thereof shall be provided in accordance with paragraph 6 of Section I of the Notification Protocol. In this case, the Party providing the coordinates shall, within 15 days, provide clarifying information permitting the other Party to differentiate between the locations within one minute of latitude and longitude of each other, or provide their coordinates to include seconds of sufficient accuracy to differentiate between the locations.

4. The Parties shall provide site diagrams for each facility at which baseline data inspections, data update inspections, new facility and suspect-site

inspections may be conducted; and for each facility subject to continuous monitoring, in accordance with the following:

- (a) No later than 30 days after signature of the Treaty, each Party shall provide site diagrams for each facility listed in this Memorandum at which baseline data inspections and data update inspections may be conducted, and at which suspect-site inspections may be conducted, and for each facility subject to continuous monitoring.
- (b) Thereafter, for each new facility provided for in this paragraph, each Party shall provide site diagrams.

All such site diagrams shall be drawn to scale and shall include boundaries of the facility, road and rail entrances/exits, facility reference points with geographic coordinates, and scale of the site diagram.

5. For ICBM bases, the following site diagrams shall be provided:

ICBM base for silo launchers of ICBMs -- a site diagram of the entire ICBM base and a site diagram of the maintenance facility.

ICBM base for road-mobile launchers of ICBMs -- a site diagram of the entire ICBM base, a site diagram of the maintenance facility, and a site diagram of each restricted area.

ICBM base for rail-mobile launchers of ICBMs -- a site diagram of the entire ICBM base, a site diagram of the rail garrison and a site diagram of the maintenance facility if the maintenance facility is located outside the rail garrison. If the maintenance facility is within the rail garrison, the site diagram of the entire ICBM base shall not be required, and in this case the maintenance facility shall be shown on the site diagram for the rail garrison, and a separate site diagram of the maintenance facility shall not be required.

Each site diagram of the entire ICBM base shall be drawn in a simplified form. Such a simplified site diagram shall consist of the following:

For each group of silo launchers of ICBMs, only its name or designation shall be required to be specified, and the location of each silo launcher of ICBMs shall be depicted;

For each restricted area, its name or designation shall be specified, and the reference point and approximate boundary of each such restricted area shall be depicted;

For each rail garrison, its name shall be specified, and the reference point, location and designation of each parking site, each rail entrance/exit, and connecting rail lines shall be depicted.

For each maintenance facility, its name shall be specified, and the reference point and approximate boundary of the maintenance facility shall be depicted.

In addition, the name of the entire ICBM base, reference point with geographic coordinates for the entire ICBM base, and the network of major roads that connect the maintenance facility with the groups of silo launchers of ICBMs, the restricted areas, or the rail garrisons shall be depicted on a simplified site diagram. In all other respects, each simplified site diagram of the entire ICBM base shall meet all requirements set forth in subparagraphs 9(a) and 9(b)(i) of this Annex.

6. Site diagrams of deployment areas shall not be required. The boundaries of deployment areas shall be defined by straight lines connecting points on the terrain, the geographic coordinates of which shall be provided pursuant to this Memorandum. Site diagrams of restricted areas shall show the road network connecting fixed structures for road-mobile launchers of ICBMs. Site diagrams for rail garrisons shall show all rail lines, rail entrances/exits, and parking sites within the rail garrison, and the maintenance facility if the maintenance facility is within the rail garrison. Site diagrams of rail garrisons need not have boundaries shown. If the boundaries of a rail garrison are not shown, the site diagram of such a rail garrison shall be drawn to include all parking sites and rail entrances/exits, as well as all rail lines and associated structures that are large enough to contain items of inspection, except for those structures where reentry vehicles are stored.

7. The site diagrams of facilities associated with SLBM launchers shall show the fixed piers and wharves at these facilities.

8. Site diagrams for air bases for heavy bombers and former heavy bombers shall depict runways and taxiways. Additionally, parking areas, revetments, shelters, hangars, and all locations where heavy bombers are parked or maintained shall be depicted on the site diagram.

9. For site diagrams of facilities provided pursuant to this Memorandum, the following requirements are established:

(a) All site diagrams shall meet the following requirements:

- (i) The title of a site diagram shall provide the name and function of the facility depicted on the site diagram as it appears in this Memorandum, reference point geographic coordinates of this facility provided pursuant to this Memorandum, and the day, month, and year that the diagram was prepared. A site diagram that does not depict the entire facility, but only a portion of that facility, shall include the above-mentioned title for the entire facility and an additional subtitle with similar information for that portion of the facility. The information shall be provided in both English and Russian.
- (ii) The facility reference point, as specified by geographic coordinates provided pursuant to this Memorandum or on the facility site diagram, shall be indicated on the site diagram by a "+" sign and by the letters "RP" (Reference Point) near that sign.

- (iii) An arrow indicating the orientation of the facility relative to geographic (true) north shall be included on the site diagram.
 - (iv) The cartographic projection method used as the basis for a site diagram shall provide an undistorted view of the facility.
 - (v) The site diagram shall be drawn so that the depicted facility fills approximately 80 percent of either the vertical or horizontal dimension of a page. At a minimum, a page must be 21 x 27.9 centimeters. The site diagram shall include a bar scale, showing the scale of the site diagram in meters or kilometers, and a numerical ratio 1:S, where "S" is the number indicating the factor of reduction used in depicting on the site diagram the actual measurements taken in the field.
 - (vi) Symbols shall be used to draw site diagrams to represent, for example, the boundaries of the facility, road and rail entrances and exits, structures, and roads. A list of the symbols used, with a clear explanation of what is represented by them, shall be included by the Parties on the front or reverse side of each site diagram, or one copy of such a list shall be included with each exchange of site diagrams between the Parties.
- (b) Site diagrams of facilities, except those required for continuous monitoring activities, shall meet the following additional requirements:
- (i) Facility boundaries shall be shown on the site diagram that, at a minimum, enclose the structures used for, and the area associated with, items declared at that facility, as well as the structures used to contain the support equipment declared at that facility. The boundaries shall be clearly delineated by using, where possible, man-made or natural features such as roads, fences, railroad tracks, or rivers.
 - (ii) The network of major roads within the facility shall be shown on the site diagram, but if the facility consists of two or more non-contiguous areas, the network of major roads connecting these separate areas shall also be shown.
 - (iii) *At a minimum, all structures used for items declared at that facility, and the structures used to contain the support equipment declared at that facility shall be shown within the boundary of that facility on the site diagram. Additionally, all structures that are intended for, and are large enough to be used for, items or support equipment declared at that facility shall be shown within the boundary of that facility, except those structures the entrances of which are not large enough to permit passage of such items or support equipment. If such structures are below ground, the entrances shall be marked and an outline of the below-ground structure shall be shown on*

the site diagram. Structures shown on the site diagram shall be in the shape of the area occupied by them or the area covered by the roofs of those structures and shall be accurately shown in proper scale and orientation to other structures and features shown on the site diagram. Notwithstanding the provisions of this subparagraph or of subparagraph 9(b)(i) above, silo training launchers and silo test launchers shall be shown on the site diagram of the facility at which they are declared, either outside or within the boundary of that facility.¹

- (iv) In case of construction of additional structures at facilities or elimination of the existing structures specified in subparagraph (b) (iii) of this paragraph, no updating of site diagrams provided pursuant to this Memorandum shall be required. *During pre-inspection procedures, a member of the in-country escort shall provide the inspectors a copy of the site diagram, updated to show changes in such structures and, at a minimum, showing all other structures that are intended for, and are large enough to be used for, items or support equipment declared at that facility, except those structures the entrances of which are too small to permit passage of such items or support equipment.² This process shall constitute an official update of site diagrams.*
- (c) Site diagrams for facilities subject to continuous monitoring shall meet the following additional requirements:
 - (i) The outer perimeter of such a facility shall be delineated by a single, continuous line drawn on the site diagram.
 - (ii) The proposed boundary of the perimeter continuous monitoring area shall be delineated by a dashed line.
 - (iii) Additionally, the portal and all road exits and personnel exits shall be depicted.
 - (iv) Finalized site diagrams of such a facility shall be prepared following completion of the engineering survey.

10. Photographs of assembled ICBMs; assembled SLBMs; first stages of ICBMs; first stages of SLBMs; launch canisters for assembled ICBMs; mobile launchers of ICBMs; fixed structures for mobile launchers of ICBMs; support equipment; long-range nuclear ALCMs; and heavy bombers and former heavy bombers subject to inspection of, as applicable, all types, categories, variants, and versions that are specified in this Memorandum shall be appended to this Memorandum. In addition, photographs of the distinguishing features of heavy

¹ JCIC Agreement No. 2, Article Two, Paragraph 8.

² JCIC Agreement No. 39, Article One, Paragraph 1.

bombers and former heavy bombers, specified in Annex G to this Memorandum, shall be provided during distinguishability exhibitions. All photographs shall meet the following requirements:

- (a) All photographs shall be taken using black and white film.
- (b) All photographs shall be taken with adequate lighting. The use of flash and lighting equipment shall be allowed.
- (c) The object being photographed shall contrast with the background in the photograph.
- (d) All photographs shall be of high definition and in focus.
- (e) For each object, one photograph, at least 18 by 24 centimeters, including 1.5 centimeter borders, shall be provided. For objects other than heavy bombers, all photographs shall be taken at the same level as the object being photographed with the camera placed perpendicular to the longitudinal axis of the object. Road-mobile launchers of ICBMs shall be photographed without tarpaulins or covers. In this connection, ICBM launchers mounted on a trailer or semi-trailer shall be photographed both with and without prime movers. A road-mobile launcher of ICBMs shall be photographed both with and without a missile, in a transport position. For rail-mobile launchers of ICBMs, photographs of railcars (flatcars) shall be provided. For heavy bombers and former heavy bombers subject to inspection, the photographs shall be taken from the front right-hand side, at an angle of 30-45° to the longitudinal axis of the heavy bomber. These photographs shall show the heavy bomber with the maximum number of nuclear armaments for which it is externally equipped.
- (f) The object that is being photographed shall fill at least 80 percent of the photograph (not including borders) in either horizontal or vertical aspect.
- (g) A reference gauge shall be included in each photograph together with the object. The gauge shall have alternating half-meter sections in black and white. It must be long enough to provide accurate scaling and must be placed against the object or in close proximity to it. If a reference gauge with sections of a different length is used, the length of these sections (increments) shall be specified on the label on the photograph.
- (h) Each photograph shall be labeled in both English and Russian to include the type and variant of a type of object photographed, as they are specified in this Memorandum.

11. For each base or facility specified in Annexes A, B, and C to this Memorandum, each Party shall provide data on each ICBM, SLBM, and heavy bomber of a type and variant of a type based or stored at that base or facility, according to paragraphs 1, 2, and 3 of Section I of the Notification Protocol.

12. Each Party shall:
- (a) For each measurement of the dimensions of items specified in Annexes F, G, and H to this Memorandum, specify all values to the nearest 0.01 meter if the value of the dimension being measured is less than two meters and to the nearest 0.1 meter if the value of the dimension being measured is two or more meters.
 - (b) For variants, specify separately technical data for all variants of a type specified in Annexes F, G, and H to this Memorandum.
13. For the purposes of confirming the type of ICBM or SLBM, the length of an assembled ICBM or SLBM without its front section shall be the distance from the edge of the main engine nozzle of the first stage to:
- (a) the place where the missile joins the front section, or
 - (b) the forward point of the missile if the front section is inside the missile airframe or its reentry vehicles are inside the missile airframe.
14. For the purposes of the Treaty that are unrelated to confirming a new type of ICBM or SLBM, first stage length shall be:
- (a) For ICBMs or SLBMs maintained, stored, and transported as assembled missiles in launch canisters or without launch canisters, the distance from the edge of the main engine nozzle to the edge of the ICBM or SLBM airframe where the first stage separates during flight.
 - (b) For ICBMs or SLBMs maintained, stored, and transported as stages, the distance from the lower edge of the main engine nozzle to the place where the first stage, in the form in which it exits the production facility, joins the rest of the missile airframe.
15. For purposes of confirming a new type of ICBM or SLBM on the basis of a change in the length of the first stage (with or without a change in throw-weight), the length of the first stage shall be:
- (a) For solid-propellant first stages, the distance from the point where the aft end dome of the motor case joins with the nozzle to the upper point of the forward end dome of the motor case.
 - (b) For liquid propellant first stages, the distance from the aft end of the propellant tank nearest the main engine nozzle to the forward end of the propellant tank farthest from the main engine nozzle.
16. For purposes of measuring the diameter of stages of ICBMs and SLBMs, the diameter shall be the maximum external diameter of the stage excluding protruding elements.

17. For each of its submarine bases, each Party shall provide, through diplomatic channels no later than 30 days after entry into force of the Treaty, a coastlines and waters diagram on which shall be identified the coastline of the inspection site, the coastline adjacent to the other piers and wharves at which a ballistic missile submarine that is considered by the inspected Party to be located at the submarine base might be moored, and the waters within arcs with a radius of five kilometers from such coastlines. In the event such coastlines and waters change, a new coastlines and waters diagram reflecting such change shall be provided through diplomatic channels no less than 30 days in advance of the effective date of the change. Coastlines and waters diagrams provided pursuant to this paragraph shall be used only for the purposes of the procedures set forth in paragraph 4 and subparagraph 8(d) of Section IX of the Inspection Protocol.¹

18. Geographic coordinates pertaining to data in the Memorandum of Understanding, and site diagrams provided by the Parties pursuant to the Treaty, and coastlines and waters diagrams provided by the Parties pursuant to the Treaty shall not be released to the public by any Party other than the Party that provided such geographic coordinates and such diagrams in fulfilling its obligations provided for in the Treaty, unless otherwise agreed. Additional data and other information may be agreed by the Parties within the framework of the Joint Compliance and Inspection Commission for inclusion in this paragraph. The provisions of this paragraph shall not affect the rights and obligations of the Parties with respect to the communication of such data and other information to those individuals who, because of their official responsibilities, require such data or other information to carry out activities related to the fulfillment of the obligations provided for in the Treaty.²

19. For each change to the boundary of a facility shown on the existing site diagram of the facility provided pursuant to this Memorandum that would result in the exclusion from within such boundary of any structure that was shown within such boundary pursuant to subparagraph 9(b)(iii) or 9(b)(iv) of this Annex, the change shall become effective after the following requirements are met:³

- (a) the provisions of paragraph 2 of Section IX of the Conversion or Elimination Protocol have been met with respect to the portions of the facility to be excluded from within the boundary of the facility;
- (b) for all structures that were ever shown within the boundary shown on the existing site diagram pursuant to subparagraph 9(b)(iii) or 9(b)(iv) of this Annex and that would be excluded from within the boundary of the facility, information has been provided by the Party changing the boundary of the facility, within the framework of the Joint Compliance and Inspection Commission or through diplomatic channels, on its intent with regard to.⁴

¹ JCIC Agreement No. 13, Article One, Paragraph 4.

² JCIC Agreement No. 17, Article Two.

³ JCIC Agreement No. 39, Article One, Paragraph 2.

⁴ JCIC Agreement No. 39, Article One, Paragraph 3.

- (i) *the structures that will remain unchanged but which that Party declares will no longer be used for items of inspection;*
 - (ii) *the structures that will be destroyed;*
 - (iii) *the structures that will be converted in a manner so that they are not large enough to contain items of inspection or their entrances are not large enough to permit passage of items of inspection; and*
 - (iv) *the approximate effective date of the change;*
- (c) *agreement has been reached, within the framework of the Joint Compliance and Inspection Commission, on:*
- (i) *the new boundary of the facility; and*
 - (ii) *inspections of portions of the facility to be excluded from within the boundary of the facility. The procedures for such inspections shall be agreed taking into account the plans specified pursuant to subparagraph (b) of this paragraph for each structure, including its possible destruction or conversion. Such procedures and plans shall be recorded in the agreement reached pursuant to this subparagraph. Unless otherwise agreed, the procedures for such inspections shall be based on the provisions contained in, as applicable, Sections XII and XIII of the Inspection Protocol; and*
- (d) *a notification has been provided in accordance with paragraph 19 of Section I of the Notification Protocol.¹*

20. *For each change to the boundary of a facility shown on the existing site diagram of the facility provided pursuant to this Memorandum that would not result in the exclusion from within such boundary of any structure that was ever shown within such boundary pursuant to subparagraph 9(b)(iii) or 9(b)(iv) of this Annex, the change shall become effective after the following requirements are met:²*

- (a) *agreement has been reached, within the framework of the Joint Compliance and Inspection Commission, on:*
- (i) *the new boundary of the facility; and*
 - (ii) *inspection of portions of the facility to be excluded from within the boundary of the facility. Unless otherwise agreed, the procedures for such inspection shall be based on the provisions contained in Section XII of the Inspection Protocol;*

¹ JCIC Agreement No. 29, Article One.

² JCIC Agreement No. 39, Article One, Paragraph 4.

- (b) *information has been provided by the Party changing the boundary of the facility on the approximate effective date of the change; and*
- (c) *a notification has been provided in accordance with paragraph 19 of Section I of the Notification Protocol.*

21. *For each change to the boundary of a facility shown on the existing site diagram of the facility provided pursuant to this Memorandum that would not result in the exclusion of any portion of the existing inspection site from within such boundary, the change shall become effective on the date specified in the notification of the change to such boundary provided in accordance with paragraph 19 of Section I of the Notification Protocol.*¹

¹ JCIC Agreement No. 29, Article One.