



MEMORANDUM OF UNDERSTANDING  
REGARDING THE ESTABLISHMENT OF THE DATA BASE FOR THE

TREATY BETWEEN THE  
UNITED STATES OF AMERICA  
AND THE  
UNION OF SOVIET  
SOCIALIST REPUBLICS

ON THE ELIMINATION OF THEIR  
INTERMEDIATE-RANGE AND  
SHORTER-RANGE MISSILES

DECEMBER 1987

MEMORANDUM OF UNDERSTANDING  
REGARDING THE ESTABLISHMENT OF THE DATA BASE  
FOR THE TREATY BETWEEN THE UNITED STATES OF AMERICA  
AND THE UNION OF SOVIET SOCIALIST REPUBLICS  
ON THE ELIMINATION OF THEIR INTERMEDIATE-RANGE  
AND SHORTER-RANGE MISSILES

Pursuant to and in implementation of the Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles of December 8, 1987, hereinafter referred to as the Treaty, the Parties have exchanged data current as of November 1, 1987, on intermediate-range and shorter-range missiles and launchers of such missiles and support structures and support equipment associated with such missiles and launchers.

**I. Definitions**

For the purposes of this Memorandum of Understanding, the Treaty, the Protocol on Elimination and the Protocol on Inspection:

1. The term "missile production facility" means a facility for the assembly or production of solid-propellant intermediate-range or shorter-range GLBMs, or existing types of GLCMs.

2. The term "missile repair facility" means a facility at which repair or maintenance of intermediate-range or shorter-range missiles takes place other than inspection and maintenance conducted at a missile operating base.

3. The term "launcher production facility" means a facility for final assembly of launchers of intermediate-range or shorter-range missiles.

4. The term "launcher repair facility" means a facility at which repair or maintenance of launchers of intermediate-range or shorter-range missiles takes place other than inspection and maintenance conducted at a missile operating base.

5. The term "test range" means an area at which flight-testing of intermediate-range or shorter-range missiles takes place.

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6. The term "training facility" means a facility, not at a missile operating base, at which personnel are trained in the use of intermediate-range or shorter-range missiles or launchers of such missiles and at which launchers of such missiles are located.

7. The term "missile storage facility" means a facility, not at a missile operating base, at which intermediate-range or shorter-range missiles or stages of such missiles are stored.

8. The term "launcher storage facility" means a facility, not at a missile operating base, at which launchers of intermediate-range or shorter-range missiles are stored.

9. The term "elimination facility" means a facility at which intermediate-range or shorter-range missiles, missile stages and launchers of such missiles or support equipment associated with such missiles or launchers are eliminated.

10. The term "support equipment" means unique vehicles and mobile or transportable equipment that support a deployed intermediate-range or shorter-range missile or a launcher of such a missile. Support equipment shall include full-scale inert training missiles, full-scale inert training missile stages, full-scale inert training launch canisters, and training launchers not capable of launching a missile. A listing of such support equipment associated with each existing type of missile, and launchers of such missiles, except for training equipment, is contained in Section VI of this Memorandum of Understanding.

11. The term "support structure" means a unique fixed structure used to support deployed intermediate-range missiles or launchers of such missiles. A listing of such support structures associated with each existing type of missile, and launchers of such missiles, except for training equipment, is contained in Section VI of this Memorandum of Understanding.

12. The term "research and development launch site" means a facility at which research and development booster systems are launched.

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## II. Total Numbers of Intermediate-Range and Shorter-Range Missiles and Launchers of Such Missiles Subject to the Treaty

1. The numbers of intermediate-range missiles and launchers of such missiles for each Party are as follow:

	<u>USA</u>	<u>USSR</u>
Deployed missiles	429	470
Non-deployed missiles	260	356
Aggregate number of deployed and non-deployed missiles	689	826
Aggregate number of second stages	236	650
Deployed launchers	214	484
Non-deployed launchers	68	124
Aggregate number of deployed and non-deployed launchers	282	608

2. The numbers of shorter-range missiles and launchers of such missiles for each Party are as follow:

	<u>USA</u>	<u>USSR</u>
Deployed missiles	0	387
Non-deployed missiles	170	539
Aggregate number of deployed and non-deployed missiles	170	926
Aggregate number of second stages	175	726
Deployed launchers	0	197
Non-deployed launchers	1	40
Aggregate number of deployed and non-deployed launchers	1	237

## III. Intermediate-Range Missiles, Launchers of Such Missiles and Support Structures and Support Equipment Associated With Such Missiles and Launchers

### 1. Deployed

The following are the deployment areas, missile operating bases, their locations and the numbers, for each Party of all deployed intermediate-range missiles listed as existing types in Article III of the Treaty, launchers of such missiles and the support structures and support equipment associated with such

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missiles and launchers. Site diagrams, to include boundaries and center coordinates, of each listed missile operating base are appended to this Memorandum of Understanding. The boundaries of deployment areas are indicated by specifying geographic coordinates, connected by straight lines or linear landmarks, to include national boundaries, rivers, railroads or highways.

	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
(a) UNITED STATES OF AMERICA			
(i) <u>Pershing II</u>			

Deployment Area One

The Federal Republic of Germany

Boundaries:

The territory of The Federal Republic of Germany bounded on the north by 51 degrees 00 minutes 00 seconds north latitude; on the east by 012 degrees 00 minutes 00 seconds east longitude; on the south by 48 degrees 00 minutes 00 seconds north latitude; and within the national boundaries of The Federal Republic of Germany.

Missile Operating Bases

Schwaebisch-Gmuend	40 (includes 4 spares)	36	Launch Pad Shelter - 0 Training Missile Stage - 24
48 48 54 N 009 48 29 E			
Neu. Ulm	40 (includes 4 spares)	43 (includes 7 spares)	Launch Pad Shelter - 0 Training Missile Stage - 24
48 22 40 N 010 00 45 E			
Waldheide-Neckarsulm	40 (includes 4 spares)	36	Launch Pad Shelter - 0 Training Missile Stage - 24
49 07 45 N 009 16 31 E			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
(ii) <u>BGM-109G</u>			

Deployment Area One

The United Kingdom of Great Britain and Northern Ireland

Boundaries:

The territory of The United Kingdom bounded on the north by 52 degrees 40 minutes 00 seconds north latitude; on the west by 003 degrees 30 minutes 00 seconds west longitude; on the south by the English Channel; and on the east by the English Channel and the North Sea.

Missile Operating Base

Greenham Common	101 with launch canister (includes 5 spares)	29 (includes 5 spares)	Training Missile - 0 Training Launch Canister - 7
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51 22 35 N 001 18 12 W

Deployment Area Two

The United Kingdom of Great Britain and Northern Ireland

Boundaries:

The territory of The United Kingdom bounded on the north by 53 degrees 45 minutes 00 seconds north latitude; on the west by 002 degrees 45 minutes 00 seconds west longitude; on the south by 51 degrees 05 minutes 00 seconds north latitude; and on the east by the English Channel and the North Sea.

Missile Operating Base

Molesworth	18* with launch canister	6*	Training Missile Training Launch Canister
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52 23 00 N 000 25 35 W

\*In preparation for operational status.

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

The Republic of Italy

Boundaries:

The territory of The Republic of Italy within the boundaries of the Island of Sicily.

Missile Operating Base

Comiso

108  
with launch  
canister  
(includes  
12 spares)

31  
(includes  
7 spares)

Training  
Missile - 0  
Training  
Launch  
Canister - 7

36 59 44 N 014 36 34 E

Deployment Area

The Kingdom of Belgium

Boundaries:

The territory of The Kingdom of Belgium.

Missile Operating Base

Florennes

20  
with launch  
canister  
(includes  
4 spares)

12  
(includes  
8 spares)

Training  
Missile - 0  
Training  
Launch  
Canister - 7

50 13 35 N 004 39 00 E

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area Two

## The Federal Republic of Germany

## Boundaries:

The territory of The Federal Republic of Germany bounded on the north by 51 degrees 25 minutes 00 seconds north latitude; on the east by 009 degrees 30 minutes 00 seconds east longitude; on the south by 48 degrees 43 minutes 00 seconds north latitude; and on the west by the national boundaries of The Federal Republic of Germany.

Missile Operating Base

Wueschheim	62 with launch canister (includes 14 spares)	31 (includes 9 spares)	Training Missile - 1 Training Launch Canister - 10
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50 02 33 N 007 25 06 E

Deployment Area

## The Kingdom of the Netherlands

## Boundaries:

The territory of The Kingdom of the Netherlands bounded on the north by 52 degrees 30 minutes 00 seconds north latitude and within the national boundaries of The Kingdom of the Netherlands.

Missile Operating Base

Woensdrecht	0 with launch canister	0	Training Missile - 0 Training Launch Canister - 0
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51 26 12 N 004 21 15 E

## (b) UNION OF SOVIET SOCIALIST REPUBLICS

(i) SS-20Deployment Area

## Postavy

55 12 13 N	027 00 00 E
54 52 47	026 41 18
54 43 58	026 04 07
55 01 13	026 03 43



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Support  
Structures  
and EquipmentMissilesLaunchersMissile Operating Base

Postavy

9

9

55 09 47 N 026 54 21 E

Launch

Canister - 9

Missile Transporter

Vehicle - 0

Fixed Structure

for Launcher - 9

Training

Missile - 0

Deployment Area

Vetrino

55 28 44 N 028 42 29 E

55 01 03 028 15 03

55 01 16 027 48 46

55 16 22 027 49 05

Missile Operating Base

Vetrino

9

9

55 24 19 N 028 33 29 E

Launch

Canister - 9

Missile Transporter

Vehicle - 0

Fixed Structure

for Launcher - 9

Training

Missile - 0

Deployment Area

Polotsk

55 37 36 N 028 23 49 E

55 28 07 029 20 25

54 32 15 029 09 47

54 39 32 028 10 40

Missile Operating Base

Polotsk

9

9

55 22 34 N 028 44 17 E

Launch

Canister - 9

Missile Transporter

Vehicle - 0

Fixed Structure

for Launcher - 9

Training

Missile - 0

- 9 -

	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

Smorgon'

54 37 43 N	026 52 34 E
54 22 37	026 52 37
54 37 18	025 41 58
54 45 21	026 15 13

Missile Operating Base

Smorgon'

9

9

54 36 16 N 026 23 05 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

Deployment Area

Smorgon'

54 29 01 N	026 26 40 E
54 05 04	025 53 59
54 24 14	025 31 18
54 35 27	026 19 10

Missile Operating Base

Smorgon'

9

9

54 31 36 N 026 17 20 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Lida			
53 45 24 N	025 29 02 E		
53 34 00	024 49 35		
53 42 25	024 38 15		
53 58 05	025 10 17		
<u>Missile Operating Base</u>			
Lida	9	9	Launch
			Canister - 9
53 47 39 N	025 20 27 E		Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 9
			Training
			Missile - 0
<u>Deployment Area</u>			
Gezgaly			
53 38 53 N	025 25 38 E		
53 23 48	025 26 12		
53 12 46	025 08 38		
53 22 57	024 35 43		
<u>Missile Operating Base</u>			
Gezgaly	6	6	Launch
			Canister -
53 32 50 N	025 16 48 E		Missile Transporter
			Vehicle -
			Fixed Structure
			for Launcher - 6
			Training
			Missile -

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Slonim			
52 58 15 N	025 55 42 E		
52 45 02	025 31 08		
53 04 08	025 09 00		
53 08 45	025 30 20		
<u>Missile Operating Base</u>			
Slonim	9	9	Launch Canister - 9 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 9 Training Missile - 0
52 55 54 N	025 21 59 E		
<u>Deployment Area</u>			
Ruzhany			
52 55 21 N	024 58 40 E		
52 46 32	024 48 25		
52 45 52	024 16 26		
53 07 34	024 22 14		
<u>Missile Operating Base</u>			
Ruzhany	6	6	Launch Canister - 6 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 6 Training Missile - 0
52 49 29 N	024 45 45 E		

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Zasimovich			
52 37 55 N	024 48 50 E		
52 22 00	024 10 52		
52 32 36	023 56 54		
52 45 52	024 16 26		
<u>Missile Operating Base</u>			
Zasimovich	6	6	Launch
			Canister - 6
52 30 38 N	024 08 43 E		Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 6
			Training
			Missile - 0
<u>Deployment Area</u>			
Mozyr'			
52 05 31 N	029 13 04 E		
51 39 05	029 39 31		
51 42 00	029 01 30		
51 52 57	028 51 32		
<u>Missile Operating Base</u>			
Mozyr'	9	9	Launch
			Canister - 9
52 02 27 N	029 11 15 E		Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 9
			Training
			Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

## Petrikov

52 16 29 N	029 03 04 E
52 08 06	028 48 40
52 08 33	028 13 37
52 27 47	028 28 17

Missile Operating Base

## Petrikov

6

6

52 10 29 N 028 34 52 E

Launch  
Canister - 6  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 6  
Training  
Missile - 0

Deployment Area

## Zhitzkovichi

52 23 40 N	028 10 31 E
52 08 35	028 10 07
52 08 55	027 14 01
52 24 01	027 14 06

Missile Operating Base

## Zhitzkovichi

6

6

52 11 36 N 027 48 07 E

Launch  
Canister - 6  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 6  
Training  
Missile - 0

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Support  
Structures  
and Equipment

Missiles

Launchers

Deployment Area

Rechitsa

52 26 34 N	030 21 10 E
52 05 27	030 43 26
51 47 47	030 23 27
52 13 08	030 00 53

Missile Operating Base

Rechitsa

6

6

52 11 58 N 030 07 11 E

Launch  
Canister - 6  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 6  
Training  
Missile - 0

Deployment Area

Slutsk

53 28 29 N	027 57 50 E
53 02 31	028 07 59
53 13 35	027 25 09
53 28 40	027 28 55

Missile Operating Base

Slutsk

9

9

53 14 20 N 027 42 15 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Lutsk			
51 08 14 N	025 54 51 E		
50 50 45	025 34 49		
51 16 24	025 16 49		
51 20 51	025 26 59		
<u>Missile Operating Base</u>			
Lutsk	9	9	Launch Canister - 9 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 9 Training Missile - 0
50 56 07 N	025 36 26 E		
<u>Deployment Area</u>			
Lutsk			
51 10 05 N	025 27 21 E		
50 43 54	025 07 49		
50 47 35	024 33 38		
51 11 22	024 35 49		
<u>Missile Operating Base</u>			
Lutsk	9	9	Launch Canister Missile Transporter Vehicle Fixed Structure for Launcher - 9 Training Missile
50 50 06 N	025 04 02 E		



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MissilesLaunchersSupport  
Structures  
and EquipmentDeployment Area

## Brody

50 14 00 N	025 29 11 E
50 00 46	025 09 30
50 17 32	024 41 55
50 22 10	024 58 33

Missile Operating Base

## Brody

9

9

50 06 09 N 025 12 14 E

## Launch

Canister - 9  
 Missile Transporter  
 Vehicle - 0  
 Fixed Structure  
 for Launcher - 9  
 Training  
 Missile - 0

Deployment Area

## Chervonograd

50 41 07 N	024 33 58 E
50 13 10	024 38 45
50 19 02	024 11 30
50 36 26	024 17 15

Missile Operating Base

## Chervonograd

9

9

50 22 45 N 024 18 16 E

## Launch

Canister - 9  
 Missile Transporter  
 Vehicle - 0  
 Fixed Structure  
 for Launcher - 9  
 Training  
 Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

## Slavuta

50 18 55 N	027 03 22 E
50 08 07	027 03 21
50 07 59	026 16 22
50 29 38	026 29 34

Missile Operating Base

## Slavuta

9

9

50 17 05 N 026 41 31 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

Deployment Area

## Belokorovichi

51 10 19 N	028 12 04 E
50 51 05	027 51 07
51 21 28	027 01 43
51 21 22	027 37 54

Missile Operating Base

## Belokorovichi

9

9

51 10 45 N 028 03 20 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

## Lipniki

51 11 38 N	029 10 28 E
50 52 28	028 55 56
51 05 53	028 22 14
51 20 57	028 26 07

Missile Operating Base

## Lipniki

9

9

51 12 22 N 028 26 37 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

Deployment Area

## Vysokaya Pech'

50 29 13 N	028 21 10 E
50 09 49	028 20 37
50 10 10	027 40 19
50 29 33	027 43 58

Missile Operating Base

## Vysokaya Pech'

6

6

50 10 11 N 028 16 22 E

Launch  
Canister - 6  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 6  
Training  
Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Vysokaya Pech'			
50 13 33 N	029 01 05 E		
49 56 07	029 10 23		
49 52 42	028 06 47		
50 07 39	028 20 33		
<u>Missile Operating Base</u>			
Vysokaya Pech'	6	6	Launch
50 05 43 N	028 22 09 E		Canister - 6
			Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 6
			Training
			Missile - 0
<u>Deployment Area</u>			
Korosten'			
50 54 31 N	029 02 51 E		
50 41 34	029 02 16		
50 42 05	028 28 20		
50 55 01	028 28 44		
<u>Missile Operating Base</u>			
Korosten'	6	6	Launch
50 52 22 N	028 31 17 E		Canister - 6
			Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 6
			Training
			Missile - 0

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MissilesLaunchersSupport  
Structures  
and EquipmentDeployment Area

## Lebedin

50 35 26 N	034 41 41 E
50 12 10	034 00 31
50 14 25	033 50 28
50 35 42	034 21 21

Missile Operating Base

## Lebedin

9

9

50 33 06 N 034 26 02 E

## Launch

Canister - 9

Missile Transporter

Vehicle - 0

Fixed Structure

for Launcher - 0

Training

Missile - 0

Deployment Area

## Glukhov

52 02 16 N	033 52 28 E
51 36 21	033 55 26
51 34 22	033 27 42
52 02 21	033 38 28

Missile Operating Base

## Glukhov

9

9

51 41 00 N 033 30 56 E

## Launch

Canister - 0

Missile Transporter

Vehicle - 0

Fixed Structure

for Launcher - 0

Training

Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Glukhov			
51 42 59 N	033 27 47 E		
51 23 31	033 37 56		
51 23 37	032 56 33		
51 43 02	033 10 25		
<u>Missile Operating Base</u>			
Glukhov	9	9	Launch Canister - 9 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 9 Training Missile - 0
51 36 44 N	033 29 17 E		
<u>Deployment Area</u>			
Akhtyrka			
50 17 58 N	034 54 32 E		
49 49 59	034 50 05		
50 10 03	033 57 06		
50 18 24	034 24 13		
<u>Missile Operating Base</u>			
Akhtyrka	9	9	Launch Canister - 9 Missile Transport Vehicle - 0 Fixed Structure for Launcher - 9 Training Missile - 0
50 16 01 N	034 49 53 E		

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

## Akhtyrka

50 10 43 N	035 34 34 E
49 54 08	035 00 16
50 18 24	034 24 13
50 26 42	034 48 07

Missile Operating Base

## Akhtyrka

9

9

50 21 59 N 034 57 03 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

Deployment Area

## Novosibirsk

55 51 09 N	083 52 28 E
55 14 33	083 49 49
55 21 52	083 08 41
55 30 29	083 09 09

Missile Operating Base

## Novosibirsk

9

9

55 22 05 N 083 13 52 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Novosibirsk			
55 06 17 N	083 34 11 E		
54 57 40	083 33 38		
55 04 53	082 52 45		
55 24 16	082 53 40		
<u>Missile Operating Base</u>			
Novosibirsk	9	9	Launch
55 22 57 N	082 55 16 E		Canister - 9
			Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 9
			Training
			Missile - 0
<u>Deployment Area</u>			
Novosibirsk			
55 31 47 N	084 08 57 E		
55 13 26	082 56 55		
55 20 01	082 49 41		
55 40 13	084 00 42		
<u>Missile Operating Base</u>			
Novosibirsk	9	9	Launch
55 19 32 N	082 56 18 E		Canister - 9
			Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 9
			Training
			Missile - 0



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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Novosibirsk			
55 08 01 N	083 53 07 E		
54 52 56	083 52 02		
55 11 17	082 56 49		
55 22 00	083 01 07		
<u>Missile Operating Base</u>			
Novosibirsk	9	9	Launch
			Canister - 9
55 18 44 N	083 01 38 E		Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 9
			Training
			Missile - 0
<u>Deployment Area</u>			
Novosibirsk			
55 03 58 N	084 18 27 E		
54 53 12	084 19 10		
55 04 49	082 56 30		
55 22 00	083 01 07		
<u>Missile Operating Base</u>			
Novosibirsk	9	9	Launch
			Canister - 9
55 19 07 N	083 09 59 E		Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 9
			Training
			Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

## Drovyanaya

51 44 02 N	113 08 33 E
51 22 28	113 07 32
51 22 49	112 46 52
51 44 16	112 54 39

Missile Operating Base

## Drovyanaya

9

9

51 27 20 N 113 03 42 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

Deployment Area

## Drovyanaya

51 37 34 N	113 08 14 E
51 22 28	113 07 32
51 18 39	112 36 23
51 27 14	112 40 08

Missile Operating Base

## Drovyanaya

9

9

51 26 10 N 113 02 43 E

Launch  
Canister -  
Missile Transporter  
Vehicle -  
Fixed Structure  
for Launcher - 9  
Training  
Missile -

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Support  
Structures  
and EquipmentMissilesLaunchersDeployment Area

## Drovyanaya

51 24 52 N	112 53 51 E
51 20 36	112 50 13
51 18 54	112 15 44
51 23 13	112 15 51

Missile Operating Base

## Drovyanaya

9

9

51 22 59 N 112 49 55 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 0  
Training  
Missile - 0

Deployment Area

## Drovyanaya

51 26 54 N	113 00 50 E
51 18 13	113 03 54
51 18 47	112 26 03
51 29 39	112 19 29

Missile Operating Base

## Drovyanaya

9

9

51 20 18 N 113 00 54 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 0  
Training  
Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Drovyanaya			
51 33 19 N	113 04 35 E		
51 22 32	113 04 05		
51 22 49	112 46 52		
51 33 36	112 47 17		
<u>Missile Operating Base</u>			
Drovyanaya	9	9	Launch
51 23 49 N	112 52 13 E		Canister - 9
			Missile Transporter Vehicle - 0
			Fixed Structure for Launcher - 9
			Training Missile - 0
<u>Deployment Area</u>			
Barnaul			
53 54 32 N	084 01 02 E		
53 43 46	084 01 48		
53 35 30	083 43 07		
53 44 16	083 36 24		
<u>Missile Operating Base</u>			
Barnaul	9	9	Launch
53 46 08 N	083 57 11 E		Canister - 9
			Missile Transporter Vehicle - 0
			Fixed Structure for Launcher - 9
			Training Missile - 0

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MissilesLaunchersSupport  
Structures  
and EquipmentDeployment Area

## Barnaul

53 29 21 N	084 31 45 E
52 58 43	083 47 57
53 13 47	083 48 56
53 29 02	084 17 18

Missile Operating Base

## Barnaul

9

9

53 18 21 N 084 08 47 E

## Launch

Canister - 9  
 Missile Transporter  
 Vehicle - 0  
 Fixed Structure  
 for Launcher - 9  
 Training  
 Missile - 0

Deployment Area

## Barnaul

53 16 38 N	084 43 16 E
52 59 32	084 51 20
52 55 09	084 47 58
53 16 02	084 14 31

Missile Operating Base

## Barnaul

9

9

53 13 29 N 084 40 10 E

## Launch

Canister - 9  
 Missile Transporter  
 Vehicle - 0  
 Fixed Structure  
 for Launcher - 9  
 Training  
 Missile - 0

- 29 -

	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
--	-----------------	------------------	-------------------------------------------------

Deployment Area

## Barnaul

53 27 33 N	084 49 55 E
53 16 42	084 46 52
53 16 02	084 14 31
53 26 58	084 21 02

Missile Operating Base

## Barnaul

9

9

53 18 47 N 084 30 27 E

## Launch

Canister - 9  
 Missile Transporter  
 Vehicle - 0  
 Fixed Structure  
 for Launcher - 9  
 Training  
 Missile - 0

Deployment Area

## Kansk

56 32 14 N	096 12 14 E
56 15 16	095 34 54
56 28 30	095 20 13
56 34 39	095 36 13

Missile Operating Base

## Kansk

9

9

56 22 31 N 095 28 35 E

## Launch

Canister - 9  
 Missile Transporter  
 Vehicle - 0  
 Fixed Structure  
 for Launcher - 9  
 Training  
 Missile - 0

- 30 -

Support  
Structures  
and Equipment

Missiles      Launchers

Deployment Area

Kansk

56 30 47 N      095 12 33 E  
56 19 53      095 19 41  
56 13 45      094 59 58  
56 31 03      094 56 58

Missile Operating Base

Kansk

9

9

56 20 09 N      095 16 34 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

Deployment Area

Kansk

56 19 29 N      096 20 56 E  
56 08 43      096 21 41  
56 08 17      096 02 24  
56 19 14      095 50 42

Missile Operating Base

Kansk

9

9

56 11 19 N      096 03 13 E

Launch  
Canister - 9  
Missile Transporter  
Vehicle - 0  
Fixed Structure  
for Launcher - 9  
Training  
Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Kansk			
56 14 50 N	096 05 46 E		
55 59 57	096 14 35		
55 59 41	096 03 03		
56 15 00	095 46 30		
<u>Missile Operating Base</u>			
Kansk	9	9	Launch
			Canister - 9
56 02 19 N	096 04 58 E		Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 9
			Training
			Missile - 0

(ii) SS-4Deployment Area

## Sovetsk

55 05 33 N	021 52 38 E
55 03 22	021 56 20
54 57 04	021 29 58
55 01 23	021 26 16

Missile Operating Base

## Sovetsk

54 59 07 N	021 36 36 E
------------	-------------

6
(Launch Stand)

Missile
Transporter
Vehicle - 11
Missile
Erector - 7
Propellant
Tank - 52
Training
Missile - 6



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Support  
Structures  
and EquipmentMissilesLaunchersDeployment Area

## Gusev

54 46 02 N 022 07 07 E  
 54 24 14 022 28 42  
 54 20 01 022 21 10  
 54 43 58 021 55 53

Missile Operating Base

## Gusev

5

7  
 (Launch  
 Stand)

54 43 59 N 022 03 27 E

Missile  
 Transporter  
 Vehicle - 12  
 Missile  
 Erector - 7  
 Propellant  
 Tank - 52  
 Training  
 Missile - 7

Deployment Area

## Malorita

51 53 50 N 024 05 39 E  
 51 43 09 024 09 49  
 51 42 59 023 57 07  
 51 53 45 023 57 50

Missile Operating Base

## Malorita

5

6  
 (Launch  
 Stand)

51 51 47 N 024 01 55 E

Missile  
 Transporter  
 Vehicle - 14  
 Missile  
 Erector - 7  
 Propellant  
 Tank - 48  
 Training  
 Missile - 5

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
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Deployment Area

## Pinsk

52 15 03 N	025 49 43 E
52 04 09	025 39 30
52 03 56	025 22 00
52 14 54	025 35 40

Missile Operating Base

## Pinsk

5

5  
(Launch  
Stand)

52 10 56 N 025 41 27 E

Missile  
Transporter  
Vehicle - 13  
Missile  
Erector - 6  
Propellant  
Tank - 47  
Training  
Missile - 6

Deployment Area

## Vyru

57 49 33 N	027 00 00 E
57 43 05	027 00 00
57 43 04	026 43 54
57 49 32	026 43 51

Missile Operating Base

## Vyru

5

6  
(Launch  
Stand)

57 45 47 N 026 47 13 E

Missile  
Transporter  
Vehicle - 11  
Missile  
Erector - 5  
Propellant  
Tank - 51  
Training  
Missile - 6

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Aluksne			
57 25 51 N	026 56 00 E		
57 21 32	026 56 01		
57 17 12	026 40 06		
57 25 49	026 40 01		

Missile Operating Base

Aluksne	5	6	Missile
		(Launch	Transporter
57 25 04 N	026 49 46 E	Stand)	Vehicle - 12
			Missile
			Erector - 6
			Propellant
			Tank - 45
			Training
			Missile - 6

Deployment Area

## Ostrov

57 38 21 N	028 20 22 E
57 21 04	028 23 43
57 21 14	028 07 47
57 38 28	028 08 19

Missile Operating Base

Ostrov	5	8	Missile
		(Launch	Transporter
57 31 53 N	028 12 19 E	Stand)	Vehicle - 12
			Missile
			Erector - 7
			Propellant
			Tank - 48
			Training
			Missile - 6

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Karmelava			
55 06 12 N	024 22 04 E		
54 57 49	024 33 51		
54 55 00	024 04 05		
55 01 28	024 03 36		

Missile Operating Base

Karmelava	5	5	Missile
		(Launch	Transporter
55 00 51 N	024 14 16 E	Stand)	Vehicle - 13
			Missile
			Erector - 6
			Propellant
			Tank - 47
			Training
			Missile - 6

Deployment Area

Ukmerge

55 17 41 N	024 59 06 E
55 04 25	024 40 58
55 08 35	024 33 12
55 19 43	024 51 26

Missile Operating Base

Ukmerge	5	6	Missile
		(Launch	Transporter
55 07 51 N	024 38 36 E	Stand)	Vehicle - 14
			Missile
			Erector - 7
			Propellant
			Tank - 50
			Training
			Missile - 6

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Taurage			
55 18 07 N	022 30 42 E		
55 09 30	022 30 22		
55 03 10	022 18 52		
55 13 35	022 21 01		

Missile Operating Base

Taurage	5	5	Missile
		(Launch	Transporter
		Stand)	Vehicle - 12
55 04 58 N	022 19 38 E		Missile
			Erector - 6
			Propellant
			Tank - 47
			Training
			Missile - 6

Deployment Area

## Kolomyia

48 45 01 N	024 55 59 E
48 36 23	024 56 20
48 36 04	024 40 04
48 44 42	024 39 40

Missile Operating Base

Kolomyia	5	6	Missile
		(Launch	Transporter
		Stand)	Vehicle - 12
48 39 32 N	024 48 04 E		Missile
			Erector - 6
			Propellant
			Tank - 46
			Training
			Missile - 7

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Deployment Area</u>			
Stryy			
49 19 59 N	023 58 46 E		
49 11 22	023 58 29		
49 21 09	023 31 57		
49 29 46	023 32 24		

Missile Operating Base

Stryy	5	7 (Launch Stand)	Missile Transporter Vehicle - 12
49 25 23 N	023 34 56 E		Missile Erector - 7
			Propellant Tank - 49
			Training Missile - 7

Deployment Area

## Skala-Podol'skaya

48 54 37 N	026 17 26 E
48 48 09	026 17 32
48 48 02	026 01 12
48 54 30	026 01 04

Missile Operating Base

Skala-Podol'skaya	5	6 (Launch Stand)	Missile Transporter Vehicle - 12
48 51 02 N	026 08 36 E		Missile Erector - 6
			Propellant Tank - 46
			Training Missile - 5

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2. Non-Deployed

The following are missile support facilities, their locations and the numbers, for each Party of all non-deployed intermediate-range missiles listed as existing types in Article III of the Treaty, launchers of such missiles and support structures and support equipment associated with such missiles and launchers. Site diagrams for agreed missile support facilities, to include boundaries and center coordinates, are appended to this Memorandum of Understanding.

	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
(a) UNITED STATES OF AMERICA			
(i) <u>Pershing II</u>			
<u>Missile Production</u>			
<u>Facilities:</u>			
Hercules Plant #1	0	0	Launch Pad
Magna, Utah			Shelter - 0
40 39 40 N 112 03 14 W			Training
			Missile
			Stage - 0
<u>Launcher Production</u>			
<u>Facilities:</u>			
Martin Marietta	0	0	Launch Pad
Middle River, Maryland			Shelter - 0
39 35 N 076 24 W			Training
			Missile
			Stage - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Missile Storage Facilities:</u>			
Pueblo Depot Activity Pueblo, Colorado  38 19 N 104 20 W	111	0	Launch Pad Shelter - 0 Training Missile Stage - 4
Redstone Arsenal Huntsville, Alabama  34 36 N 086 38 W	1	0	Launch Pad Shelter - 0 Training Missile Stage - 20
Weilerbach Federal Republic of Germany  49 27 N 007 38 E	12	0	Launch Pad Shelter - 0 Training Missile Stage - 0
<u>Launcher Storage Facilities:</u>			
Redstone Arsenal Huntsville, Alabama  34 35 N 086 37 W	0	1	Launch Pad Shelter - 0 Training Missile Stage - 0
<u>Missile/Launcher Storage Facilities:</u>			
NONE			
<u>Missile Repair Facilities:</u>			
Pueblo Depot Activity Pueblo, Colorado  38 18 N 104 19 W	0	0	Launch Pad Shelter - 0 Training Missile Stage - 0



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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Launcher Repair Facilities:</u>			
EMC Hausen Frankfurt, Federal Republic of Germany  50 08 N 008 38 E	0	0	Launch Pad Shelter - 0 Training Missile Stage - 0
Redstone Arsenal Huntsville, Alabama  34 37 N 086 38 W	0	10	Launch Pad Shelter - 0 Training Missile Stage - 0
Ft. Sill Ft. Sill, Oklahoma  34 40 N 098 24 W	0	2	Launch Pad Shelter - 0 Training Missile Stage - 0
Pueblo Depot Activity Pueblo, Colorado  38 19 N 104 20 W	0	0	Launch Pad Shelter - 0 Training Missile Stage - 0

Missile/Launcher Repair Facilities:

NONE

Test Ranges:

Complex 16 Cape Canaveral, Florida  28 29 N 080 34 W	3	0	Launch Pad Shelter - 0 Training Missile Stage - 0
------------------------------------------------------------------	---	---	---------------------------------------------------------------

Training Facilities:

Ft. Sill Ft. Sill, Oklahoma  34 41 N 098 34 W	0	39	Launch Pad Shelter - 0 Training Missile Stage - 0
--------------------------------------------------------	---	----	---------------------------------------------------------------

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Elimination Facilities:</u>			
(Not determined)			
<u>Missiles, Launchers, and Support Equipment in Transit:</u>	0	0	Training Missile Stage - 4

(ii) BGM-109GMissile Production  
Facilities:

McDonnell-Douglas Titusville, Florida  28 32 N    080 40 W	52 with launch canister	0	Training Missile - 0 Training Launch Canister - 0
General Dynamics Kearney Mesa, California  32 50 N    117 08 W	48 with launch canister	0	Training Missile - 0 Training Launch Canister - 0

Launcher Production  
Facilities:

Air Force Plant 19 San Diego, California  32 45 N    117 12 W	2 with launch canister	4	Training Missile - 0 Training Launch Canister - 0
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Missile Storage  
Facilities:

NONE

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Launcher Storage Facilities:</u>			
NONE			
<u>Missile/Launcher Storage Facilities:</u>			
NONE			
<u>Missile Repair Facilities:</u>			
SABCA Gosselies, Belgium	16 with launch canister	0	Training Missile - 0
50 27 N 004 27 E			Training Launch Canister - 0
<u>Launcher Repair Facilities:</u>			
NONE			
<u>Missile/Launcher Repair Facilities:</u>			
NONE			
<u>Test Ranges:</u>			
Dugway Proving Grounds, Utah	0 with launch canister	0	Training Missile - 0
40 22 N 113 04 W			Training Launch Canister - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Training Facilities:</u>			
Davis-Monthan AFB Tucson, Arizona	0 with launch canister	7	Training Missile - 2 Training Launch Canister - 27
32 11 N 110 53 W			
Ft. Huachuca Ft. Huachuca, Arizona	0 with launch canister	6	Training Missile - 0 Training Launch Canister - 8
31 29 N 110 19 W			

Elimination Facilities:

(Not determined)

<u>Missiles, Launchers, and Support Equipment in Transit:</u>	15 with launch canister	0	Training Missile - 0 Training Launch Canister - 2
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(b) UNION OF SOVIET SOCIALIST REPUBLICS

(i) SS-20Missile Production  
Facilities:

Votkinsk Machine Building Plant Udmurt ASSR, RSFSR	36*	0	Launch Canister - 36 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 0 Training Missile - 0
57 01 30 N 054 08 00 E			

\*In various stages of manufacture.

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Launcher Production Facilities:</u>			
Barrikady Plant Volgograd  48 44 N    044 32 E	0	1	Launch Canister - 0 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 0 Training Missile - 0
<u>Missile Storage Facilities:</u>			
NONE			
<u>Launcher Storage Facilities:</u>			
NONE			
<u>Missile/Launcher Storage Facilities:</u>			
Postavy  55 10 N    026 55 E	2	3	Launch Canister - 3 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 1

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
Gezgaly 53 36 N 025 28 E	2	2	Launch Canister - 6 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 4
Mozyr' 52 03 N 029 11 E	2	2	Launch Canister - 4 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 2
Lutsk 50 53 N 025 30 E	1	1	Launch Canister - 3 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 2
Belokorovichi 51 09 N 028 00 E	2	2	Launch Canister - 3 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 1
Lebedin 50 36 N 034 25 E	2	1	Launch Canister - 5 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 3

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
Novosibirsk 55 16 N 083 02 E	1	1	Launch Canister - 3 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 2
Drovyanaya 51 30 N 113 03 E	2	2	Launch Canister - 4 Missile Transporter Vehicle - 10 Fixed Structure for Launcher - 0 Training Missile - 2
Kansk 56 16 N 095 39 E	1	1	Launch Canister - 2 Missile Transporter Vehicle - 1 Fixed Structure for Launcher - 0 Training Missile - 1
Barnaul 53 34 N 083 48 E	1	1	Launch Canister - 1 Missile Transporter Vehicle - 3 Fixed Structure for Launcher - 0 Training Missile - 0
Kolosovo 53 31 N 026 55 E	144	0	Launch Canister - 144 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 0 Training Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
Zherebkovo 47 51 N 029 54 E	20	0	Launch Canister - 21 Missile Transporter Vehicle - 2 Fixed Structure for Launcher - 0 Training Missile - 1
<u>Missile Repair Facilities:</u> NONE			
<u>Launcher Repair Facilities:</u> NONE			
<u>Missile/Launcher Repair Facilities:</u>			
Bataysk 47 08 N 039 47 E	0	11	Launch Canister - 2 Missile Transporter Vehicle - 4 Fixed Structure for Launcher - 0 Training Missile - 2
<u>Test Ranges:</u>			
Kapustin Yar 48 37 N 046 18 E	0	8	Launch Canister - 0 Missile Transporter Vehicle - 3 Fixed Structure for Launcher - 1 Training Missile - 0



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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Training Facilities:</u>			
Serpukhov 54 54 N 037 28 E	0	6	Launch Canister - 4 Missile Transporter Vehicle - 1 Fixed Structure for Launcher - 0 Training Missile - 4
Krasnodar 45 03 N 038 58 E	0	1	Launch Canister - 2 Missile Transporter Vehicle - 1 Fixed Structure for Launcher - 0 Training Missile - 2
Training Center at Test Range Kapustin Yar 48 38 N 046 10 E	0	7	Launch Canister - 12 Missile Transporter Vehicle - 1 Fixed Structure for Launcher - 3 Training Missile - 12
<u>Elimination Facilities:</u>			
Sarny 51 21 N 026 35 E	29	68	Launch Canister - 32 Missile Transporter Vehicle - 35 Fixed Structure for Launcher - 0 Training Missile - 3
Aral'sk 46 50 N 61 18 E	0	0	Launch Canister - 0 Missile Transporter Vehicle - 0 Fixed Structure for Launcher - 0 Training Missile - 0

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
Chita	0	0	Launch
52 22 N 113 17 E			Canister - 0
			Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 0
			Training
			Missile - 0
Kansk	0	0	Launch
56 20 N 095 06 E			Canister - 0
			Missile Transporter
			Vehicle - 0
			Fixed Structure
			for Launcher - 0
			Training
			Missile - 0

Missiles, Launchers,  
and Support Equipment  
in Transit:

NONE

(ii) SS-4

Missile Production  
Facilities:

NONE

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Launcher Production Facilities:</u>			
NONE			
<u>Missile Storage Facilities:</u>			
NONE			
<u>Launcher Storage Facilities:</u>			
NONE			
<u>Missile/Launcher Storage Facilities:</u>			
Kolosovo	35	1 (Launch Stand)	Missile Transporter Vehicle - Missile Erector - Propellant Tank Training Missile -
53 31 N 026 55 E			
Zherebkovo	56	3 (Launch Stand)	Missile Transporter Vehicle - Missile Erector - Propellant Tank Training Missile -
47 51 N 029 54 E			
<u>Missile Repair Facilities:</u>			
Bataysk	0	0 (Launch Stand)	Missile Transporter Vehicle - Missile Erector - Propellant Tank -
47 08 N 039 47 E			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Launcher Repair Facilities:</u>			

NONE

Missile/Launcher  
Repair Facilities:

NONE

Test Ranges:

Kapustin Yar

14

2  
(Launch  
Stand)

48 35 N 046 18 E

Missile  
Transporter  
Vehicle - 4  
Missile  
Erector - 2  
Propellant  
Tank - 4  
Training  
Missile - 1

Training Facilities:

NONE

Elimination Facilities:

Lesnaya

0

0  
(Launch  
Stand)

52 59 N 025 46 E

Missile  
Transporter  
Vehicle - 0  
Missile  
Erector - 0  
Propellant  
Tank - 0  
Training  
Missile - 0

Missiles, Launchers,  
and Support Equipment  
in Transit:

NONE

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
(iii) <u>SS-5</u>			
<u>Missile Production Facilities:</u>			
NONE			
<u>Launcher Production Facilities:</u>			
NONE			
<u>Missile Storage Facilities:</u>			
Kolosovo	6	0	
53 31 N 026 55 E			
<u>Launcher Storage Facilities:</u>			
NONE			
<u>Missile/Launcher Storage Facilities:</u>			
NONE			
<u>Missile Repair Facilities:</u>			
NONE			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Structures and Equipment</u>
<u>Launcher Repair Facilities:</u>			

NONE

Missile/Launcher Repair  
Facilities:

NONE

Test Ranges:

NONE

Training Facilities:

NONE

Elimination Facilities:

Lesnaya

0

0

52 59 N 025 46 E

Missiles, Launchers,  
and Support Equipment  
in Transit:

NONE

### 3. Training Launchers

In addition to the support equipment listed in paragraphs 1 and 2 of this Section, the Parties possess vehicles, used to train drivers of launchers of intermediate-range missiles, which shall be considered for purposes of this Treaty to be training launchers. The number of such vehicles for each Party is:

(a) for the United States of America - 29; and

(b) for the Union of Soviet Socialist Republics - 65.

Elimination of such vehicles shall be carried out in accordance with procedures set forth in the Protocol on Elimination.

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IV. Shorter-Range Missiles, Launchers of Such Missiles and Support Equipment Associated With Such Missiles and Launchers

1. Deployed

The following are the missile operating bases, their locations and the numbers, for each Party, of all deployed shorter-range missiles listed as existing types in Article III of the Treaty, and launchers of such missiles, and the support equipment associated with such missiles and launchers. Site diagrams, to include boundaries and center coordinates, of each listed missile operating base are appended to this Memorandum of Understanding.

	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
(a) UNITED STATES OF AMERICA			
(i) <u>Pershing IA</u>			
<u>Missile Operating Base:</u>			
NONE			
(b) UNION OF SOVIET SOCIALIST REPUBLICS			
(i) <u>SS-12</u>			
<u>Missile Operating Bases:</u>			
Koenigsbrueck, German Democratic Republic	19	11	Missile Transporter Vehicle - 9 Training Missile - 10
51 16 40 N 013 53 20 E			
Bischofswerda, German Democratic Republic	8	5	Missile Transporter Vehicle - 0 Training Missile - 4
51 08 33 N 014 12 16 E			
Waren, German Democratic Republic	22	12	Missile Transporter Vehicle - 9 Training Missile - 7
53 32 40 N 012 37 30 E			
Wokuhl, German Democratic Republic	5	6	Missile Transporter Vehicle - 0 Training Missile - 7
53 16 20 N 013 15 50 E			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
Hranice, Czechoslovak Socialist Republic 49 33 00 N 017 45 00 E	39	24	Missile Transporter Vehicle - 15 Training Missile - 13
Pashino 55 16 37 N 082 59 42 E	0	4	Missile Transporter Vehicle - 1 Training Missile - 5
Gornyy 51 33 10 N 113 01 30 E	36	14	Missile Transporter Vehicle - 4 Training Missile - 10
Lapichi 53 25 30 N 028 30 00 E	9	5	Missile Transporter Vehicle - 1 Training Missile - 10
Kattakurgan 39 38 18 N 065 58 40 E	9	5	Missile Transporter Vehicle Training Missile -
Saryozek 44 31 58 N 077 46 20 E	36	15	Missile Transporter Vehicle - Training Missile - 10
Novosysoyevka 44 11 58 N 133 26 05 E	37	14	Missile Transporter Vehicle - 5 Training Missile - 17



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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
(ii) <u>SS-23</u>			
<u>Missile Operating Bases:</u>			
Weissenfels, German Democratic Republic  51 11 50 N    011 59 50 E	6	4	Missile Transporter Vehicle - 3 Training Missile - 18
Jena-Forst, German Democratic Republic  50 54 55 N    011 32 40 E	47	12	Missile Transporter Vehicle - 8 Training Missile - 3
Stan'kovo  53 38 30 N    027 13 20 E	40	18	Missile Transporter Vehicle - 18 Training Missile - 10
Tsel'  53 23 38 N    028 28 06 E	26	12	Missile Transporter Vehicle - 11 Training Missile - 9
Slobudka  52 30 30 N    024 31 30 E	26	12	Missile Transporter Vehicle - 12 Training Missile - 10
Bayram-Ali  37 36 18 N    062 10 40 E	0	12	Missile Transporter Vehicle - 12 Training Missile - 0
Semipalatinsk  50 23 00 N    080 09 30 E	22	12	Missile Transporter Vehicle - 12 Training Missile - 4

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2. Non-Deployed

The following are missile support facilities, their locations and the numbers, for each Party of all non-deployed shorter-range missiles listed as existing types in Article III of the Treaty, and launchers of such missiles and support equipment associated with such missiles and launchers. Site diagrams for agreed missile support facilities, to include boundaries and center coordinates, are appended to this Memorandum of Understanding.

	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
(a) UNITED STATES OF AMERICA			
(i) <u>Pershing IA</u>			
<u>Missile Production Facilities:</u>			
Longhorn Army Ammunition Plant . Marshall, Texas  32 39 N 094 08 W	0	0	Training Missile Stage - 0
<u>Launcher Production Facilities:</u>			
Martin Marietta Middle River, Maryland  39 35 N 076 24 W	0	0	Training Missile Stage - 0
<u>Missile Storage Facilities:</u>			
Pueblo Depot Activity Pueblo, Colorado  38 19 N 104 20 W	169	0	Training Missile Stage - 53
<u>Launcher Storage Facilities:</u>			
NONE			
<u>Missile/Launcher Storage Facilities:</u>			
NONE			
<u>Missile Repair Facilities:</u>			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
<u>Launcher Repair Facilities:</u>			
Pueblo Depot Activity Pueblo, Colorado	0	1	Training Missile Stage - 0
38 19 N 104 20 W			

Missile/Launcher Repair  
Facilities:

NONE

Test Ranges:

NONE

Training Facilities:

NONE

Elimination Facilities:

(Not determined)

<u>Missiles, Launchers, and Support Equipment in Transit:</u>	1	0	Training Missile Stage - 0
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(b) UNION OF SOVIET SOCIALIST REPUBLICS

(i) SS-12Missile Production  
Facilities:

Votkinsk Machine Building Plant Udmurt ASSR, RSFSR	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
57 01 30 N 054 08 00 E			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
<u>Launcher Production Facilities:</u>			
Barrikady Plant Volgograd 48 44 N 044 32 E	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
<u>Missile Storage Facilities:</u>			
Lozovaya 48 55 N 036 22 E	126	0	Missile Transporter Vehicle - 0 Training Missile - 12
Ladushkin 54 35 N 020 12 E	72	0	Missile Transporter Vehicle - 0 Training Missile - 18
Bronnaya Gora 52 37 N 025 04 E	170	0	Missile Transporter Vehicle - 0 Training Missile - 3
Balkhash 46 50 N 075 36 E	138	0	Missile Transporter Vehicle - 0 Training Missile - 47
<u>Launcher Storage Facilities:</u>			
Berezovka 50 20 N 028 26 E	0	15	Missile Transporter Vehicle - 10 Training Missile - 0

Missile/Launcher Storage Facilities:

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
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Missile Repair Facilities:

NONE

Launcher Repair Facilities:

NONE

Missile/Launcher  
Repair Facilities:

NONE

Test Ranges:

NONE

Training Facilities:

Saratov	0	3	Missile Transporter Vehicle - 2 Training Missile - 0
51 34 N 046 01 E			
Kazan'	0	2	Missile Transporter Vehicle - 2 Training Missile - 0
55 58 N 049 11 E			
Kamenka	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
53 11 N 044 04 E			

Elimination Facilities:

Saryozek (Missiles)	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
44 32 N 077 46 E			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
Stan'kovo (Launchers and Missile Transporter Vehicles)	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
53 38 N 027 13 E			

Missiles, Launchers,  
and Support Equipment  
in Transit:

NONE

(ii) SS-23

Missile Production Facilities:

Votkinsk Machine Building Plant Udmurt ASSR, RSFSR	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
57 01 30 N 054 08 00 E			

Launcher Production Facilities:

V.I. Lenin Petropavlovsk Heavy Machine Building Plant Petropavlovsk	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
54 51 N 069 09 E			

Missile Storage Facilities:

Ladushkin	33	0	Missile Transporter Vehicle - 0 Training Missile - 42
54 35 N 020 12 E			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
<u>Launcher Storage Facilities:</u>			
Berezovka	0	13	Missile Transporter Vehicle - 5 Training Missile - 0
50 20 N 028 26 E			
<u>Missile/Launcher Storage Facilities:</u>			
NONE			
<u>Missile Repair Facilities:</u>			
NONE			
<u>Launcher Repair Facilities:</u>			
NONE			
<u>Missile/Launcher Repair Facilities:</u>			
NONE			
<u>Test Ranges:</u>			
NONE			
<u>Training Facilities:</u>			
Saratov	0	3	Missile Transporter Vehicle - 2 Training Missile - 0
51 34 N 046 01 E			
Kazan'	0	3	Missile Transporter Vehicle - 2 Training Missile - 0
55 58 N 049 11 E			

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
Kamenka 53 11 N 044 04 E	0	1	Missile Transporter Vehicle - 1 Training Missile - 0
<u>Elimination Facilities:</u>			
Saryozek (Missiles) 44 32 N 077 46 E	0	0	Missile Transporter Vehicle - 0 Training Missile - 0
Stan'kovo (Launchers and Missile Transporter Vehicles) 53 38 N 027 13 E	0	0	Missile Transporter Vehicle - 0 Training Missile - 0

Missiles, Launchers,  
and Support Equipment  
in Transit:

NONE

V. Missile Systems Tested, But Not Deployed, Prior to Entry into  
Force of the Treaty

The following are the missile support facilities, their locations and the numbers, for each Party of all intermediate-range and shorter-range missiles, and launchers of such missiles, which were tested prior to entry into force of the Treaty, but were never deployed, and which are not existing types of intermediate-range or shorter-range missiles listed in Article III of the Treaty. Site diagrams for agreed missile support facilities, to include boundaries and center coordinates, are appended to this Memorandum of Understanding.



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<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
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(a) UNITED STATES OF AMERICA

(i) Pershing IB

Missile Production  
Facilities:

NONE

Launcher Production  
Facilities:

NONE

Missile Storage  
Facilities:

NONE

Launcher Storage  
Facilities:

NONE

Missile/Launcher Storage  
Facilities:

NONE

Missile Repair  
Facilities:

NONE

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<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
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Launcher Repair  
Facilities:

NONE

Missile/Launcher Repair  
Facilities:

NONE

Test Ranges:

NONE

Training Facilities:

NONE

Elimination Facilities:

NONE

Missiles, Launchers,  
and Support Equipment  
in Transit:

NONE

(b) UNION OF SOVIET SOCIALIST REPUBLICS

(i) SSC-X-4

Missile Production  
Facilities:

NONE

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	<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
<u>Launcher Production</u>			
<u>Facilities:</u>			
Experimental Plant of the Amalgamated Production Works "M. I. Kalinin Machine Building Plant," Sverdlovsk	0 with launch canister	0	
56 47 24 N    060 47 03 E			

Missile Storage  
Facilities:

NONE

Launcher Storage  
Facilities:

NONE

Missile/Launcher Storage  
Facilities:

Jelgava	84	6
56 40 N    024 06 E	with launch canister	

Missile Repair  
Facilities:

NONE

Launcher Repair  
Facilities:

NONE

Missile/Launcher Repair  
Facilities:

NONE

Test Ranges:

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<u>Missiles</u>	<u>Launchers</u>	<u>Support Equipment</u>
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Training Facilities:

NONE

Elimination Facilities:

Jelgava

56 40 N 024 06 E

0  
with  
launch  
canister

0

Missiles, Launchers,  
and Support Equipment  
in Transit:

NONE

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VI. Technical Data

Following are agreed categories of technical data for missiles and launchers subject to the Treaty, support structures and support equipment associated with such missiles and launchers and the relevant data for each of these categories. Photographs of missiles, launchers, support structures and support equipment listed below are appended to this Memorandum of Understanding.

## 1. Intermediate-Range Missiles

	<u>P-II</u>	<u>BGM-109G</u>	<u>SS-20</u>	<u>SS-4</u>	<u>SS-5</u>	<u>SSC-X-4</u>
(a) <u>Missile Characteristics:</u>						
(i) Maximum number of warheads per missile	1	1	3	1	1	1
(ii) Length of missile, with front section (meters)	10.61	6.40	16.49	22.77	24.30	8.09
(iii) Length of .						
1st stage	3.68	-	8.58	18.60	21.62	-
2nd stage (meters)	2.47	-	4.60	-	-	-
(iv) Maximum diameter of						
1st stage	-	0.53	-	1.65	2.40	0.51
2nd stage (meters)	1.02	-	1.79	-	-	-
	1.02	-	1.47	-	-	-
(v) Weight of GLBM, in metric tons (without front section; for liquid-fueled missiles, empty weight)	6.78	-	-	3.35	4.99	-
1st stage	4.15	-	26.63	-	-	-
2nd stage	2.63	-	8.63	-	-	-
Missile in canister	-	-	42.70	-	-	-
(vi) Weight of assembled GLCM, in metric tons (with fuel)						
In canister	-	1.71	-	-	-	1.44
Without canister	-	1.47	-	-	-	1.70

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P-II    BGM-109G    SS-20    SS-4    SS-5    SSC-X-4

(b) Launcher Characteristics:

(i)	Dimensions (maximum length, width, height in meters)	9.60 2.49 2.86	10.64 2.44 2.64	16.81 3.20 2.94	3.02 3.02 3.27	- - -	12.80 3.05 3.80
(ii)	Maximum number of missiles each launcher is capable of carrying or containing at one time	1	4	1	1	-	6
(iii)	Weight (in metric tons)	12.04	14.30	40.25	6.90	-	29.10

(c) Characteristics of Support Structures Associated With Such Missiles and Launchers

Dimensions of support structures are as follows (maximum length, width, height in meters):

(i)	Fixed structure for a launcher	-	-	27.70 9.07 6.82	-	-	-
(ii)	Launch pad shelter	74.00 14.60 10.00	-	-	-	-	-

(d) Characteristics of Support Equipment Associated With Such Missiles and Launchers

Dimensions of support equipment are as follows (maximum length, width, height in meters):

(i)	Launch canister (Diameter)	-	6.94 0.53	19.32 2.14	-	-	8.35 0.65
(ii)	Missile transporter vehicle (number of missiles per vehicle)	-	-	17.33 3.20 2.90 (1)	22.85 2.72 2.50 (1)	-	-
(iii)	Missile erector	-	-	-	15.62 3.15 3.76	-	-
(iv)	Propellant tank (Transportable)	-	-	-	11.38 2.63 2.96	-	-
	Fuel	-	-	-	10.70	-	-

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**Number of  
Launchers**

**Cape Cod, Massachusetts**

**1**

**42 01 N 070 07 W**

**Wake Island**

**2**

**19 18 N 166 37 E**

**Wallops Island, Virginia**

**1**

**37 51 N 075 28 W**

**(b) UNION OF SOVIET SOCIALIST REPUBLICS**

**Plesetskaya**

**3**

**62 53 N 040 52 E**

**Kapustin Yar**

**2**

**48 32 N 046 18 E**

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Each Party, in signing this Memorandum of Understanding, acknowledges it is responsible for the accuracy of only its own data. Signature of this Memorandum of Understanding constitutes acceptance of the categories of data and inclusion of the data contained herein.

This Memorandum of Understanding is an integral part of the Treaty. It shall enter into force on the date of entry into force of the Treaty and shall remain in force so long as the Treaty remains in force.

DONE at Washington on December 8, 1987, in two copies, each in the English and Russian languages, both texts being equally authentic.

FOR THE UNITED STATES OF  
AMERICA:

FOR THE UNION OF SOVIET  
SOCIALIST REPUBLICS:

President of the United States  
of America

General Secretary of the  
Central Committee of the CPSU