## Table of ceasefire violations as of 21 July 2019<sup>1</sup>

SMM position	Event location	Means	No	Observation	Description	Weapon	Date, time
SMM camera in	2-4km				<b>J</b>		,
Chermalyk	SSE	Recorded	2	Projectile	NE to SW	N/K	19-Jul, 20:51
(government-controlled,	2-4km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 20:53
31km NE of Mariupol)	2-4km SE	Recorded	2	Muzzle flash		N/K	19-Jul, 20:57
	2-4km SE	Recorded	2	Projectile	NNE to SSW	N/K	19-Jul, 20:57
	2-4km SE	Recorded	1	Explosion	Impact	N/K	19-Jul, 20:57
	2-4km SSE	Recorded	3	Muzzle flash		N/K	19-Jul, 21:05
	2-4km SSE	Recorded	6	Projectile	NE to SW	N/K	19-Jul, 21:05
	2-4km	110001400	Ů	Trojectiie	112 10 5 11	1 1/12	15 001, 21.00
	SSE	Recorded	2	Projectile	N to S	N/K	19-Jul, 21:05
	2-4km					- "	
	SSE	Recorded	1	Muzzle flash		N/K	19-Jul, 21:06
	2-4km						,
	SSE	Recorded	4	Projectile	ENE to WSW	N/K	19-Jul, 21:06
	2-4km						·
	SSE	Recorded	1	Explosion	Impact	N/K	19-Jul, 21:06
	2-4km SSE	Recorded	1	Projectile	ENE to WSW	N/K	19-Jul, 21:07
	2-4km SSE	Recorded	2	Projectile	ENE to WSW	N/K	19-Jul, 21:08
	2-4km			3			
	SSE	Recorded	4	Explosion	Undetermined	N/K	19-Jul, 21:08
	2-4km SE	Recorded	7	Projectile	ENE to WSW	N/K	19-Jul, 21:11
	2-4km SSE	Recorded	3	Projectile	NE to SW	N/K	19-Jul, 21:31
	1-3km						
	SSE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 21:31
	2-4km						
	SSE	Recorded	25	Projectile	NE to SW	N/K	19-Jul, 21:47
	2-4km						
	SSE	Recorded	10	Projectile	SSW to NNE	N/K	19-Jul, 21:48
	3-5km	D 1.1	1	F 1 '	TT 1 4 1 1	NI/IZ	10 1 1 21 40
	SSE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 21:49
	2-4km	Recorded	1	M1- fl1-		NI/IZ	10 1-1 21-51
	SSE 2-4km	Recorded	2	Muzzle flash		N/K	19-Jul, 21:51
	SSE	Recorded	10	Projectile	NNE to SSW	N/K	10 Jul 21:51
	2-4km	Recorded	10	Frojectile	ININE IO 33 W	IN/IX	19-Jul, 21:51
	SSE	Recorded	9	Projectile	WSW to ENE	N/K	19-Jul, 21:59
	4-6km S	Recorded	3	Projectile	WSW to ENE	N/K	19-Jul, 22:00
	2-4km	Recorded	3	Trojectiic	WSW to ENE	14/15	17-341, 22.00
	SSE	Recorded	4	Projectile	SW to NE	N/K	19-Jul, 22:00
	4-6km S	Recorded	1	Muzzle flash	DIT WILL	N/K	19-Jul, 22:00
	2-4km	Recorded	1	THEELIC HUSH		11/11	17 341, 22.00
	SSE	Recorded	2	Projectile	WSW to ENE	N/K	19-Jul, 22:01
	2-4km			,			,
	SSE	Recorded	24	Projectile	WSW to ENE	N/K	19-Jul, 22:02
	2-4km			<b>.</b>		27.77	10 1 1 22 2
	SSE	Recorded	25	Projectile	ENE to WSW	N/K	19-Jul, 22:02

<sup>&</sup>lt;sup>1</sup> The table only includes ceasefire violations directly observed by the SMM and it may include those also assessed to be live-fire exercises, controlled detonations, etc. Details provided – in terms of distance, direction, weapons-type, etc. – are based on assessments provided by monitors on the ground, and are not always necessarily precise. When information is not known (indicated with an "N/K"), the SMM was unable to ascertain such information due to distance, weather conditions and/or other considerations. Ceasefire violations recorded by more than one patrol and assessed to be the same are entered only once.

2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:
4-6km S	Recorded	1	Explosion		N/K	19-Jul, 22:
2-4km			1			,
SSE	Recorded	1	Muzzle flash		N/K	19-Jul, 22:
2-4km						
SSE	Recorded	1	Explosion	Impact	N/K	19-Jul, 22:
4-6km S	Recorded	1	Projectile	ENE to WSW	N/K	19-Jul, 22:
4-6km S	Recorded	1	Explosion		N/K	19-Jul, 22:
2-4km		_				
SSE	Recorded	5	Projectile	WSW to ENE	N/K	19-Jul, 22:
2-4km	D 1.1	2	Б 1 .	TT 1 1	NI/IZ	10 1 1 22
SSE 3-5km	Recorded	3	Explosion	Undetermined	N/K	19-Jul, 22:
SSE	Recorded	1	Projectile	NNW to SSE	N/K	19-Jul, 22:
3-5km S	Recorded	15	Projectile	WSW to ENE	N/K	19-Jul, 22:
2-4km	Recorded	13	Tiojectiic	WSW TO ENE	IV/IX	17-341, 22.
SSE	Recorded	1	Projectile	NE to SW	N/K	19-Jul, 22:
2-4km	recorded	1	Trojectife	TIE to S II	11/11	19 841, 22.
SSE	Recorded	1	Explosion	Impact	N/K	19-Jul, 22:
4-6km		1	,			
SSE	Recorded	2	Explosion		N/K	19-Jul, 22:
4-6km						
SSE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:
3-5km						
SSE	Recorded	1	Projectile	SW to NE	N/K	19-Jul, 22:
				Impact,		
3-5km				subsequent to		
SSE	Recorded	1	Explosion	previous event	N/K	19-Jul, 22:
4-6km	<b>5</b>				3.7.77	10.7.1.00
SSE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:
4-6km S 4-6km S	Recorded Recorded	1	Projectile Explosion	SW to NE	N/K N/K	19-Jul, 22: 19-Jul, 22:
4-6km S 4-6km S	Recorded	2	Projectile	Impact SW to NE	N/K N/K	19-Jul, 22:
4-6km S	Recorded	$\frac{2}{1}$	Explosion	Impact	N/K N/K	19-Jul, 22:
4-6km S	Recorded	1	Muzzle flash	Impact	N/K N/K	19-Jul, 22:
4-6km S	Recorded	1	Projectile	SW to NE	N/K	19-Jul, 22:
4-6km S	Recorded	1	Explosion	Undetermined	N/K N/K	19-Jul, 22:
4-6km S	Recorded	2	Projectile	SW to NE	N/K	19-Jul, 23:
4-6km S	Recorded	1	Explosion	Impact	N/K	19-Jul, 23:
4-6km S	Recorded	4	Projectile	WSW to ENE	N/K	19-Jul, 23:
4-6km S	Recorded	2	Projectile	SW to NE	N/K	19-Jul, 23:
4-6km S	Recorded	4	Projectile	SW to NE	N/K	19-Jul, 23:
5-7km		† ·	. ,			2 2 22, 20.
SSE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 23:
4-6km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 23:
4-6km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 23:
3-5km						
SSE	Recorded	3	Muzzle flash		N/K	20-Jul, 01:
3-5km						
SSE	Recorded	5	Projectile	ENE to WSW	N/K	20-Jul, 01:
3-5km						
SSE	Recorded	16	Projectile	ENE to WSW	N/K	20-Jul, 01:
3-5km		_				00.7.7.7
SSE	Recorded	2	Muzzle flash		N/K	20-Jul, 01:
2-4km SE	Recorded	20	Projectile	In vertical flight	N/K	20-Jul, 02:
2-4km SE	Recorded	2	Projectile	In vertical flight	N/K	20-Jul, 02:
2-4km	D 1 1		Desir 41	I	NI/IZ	20.1.1.02
SSE	Recorded	1	Projectile	In vertical flight	N/K	20-Jul, 02:
2-4km	Dagardad	1	Evalosion	Undataminad	N/W	20 191 02
SSE 2 4km SE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 02:
2-4km SE	Recorded Recorded	3	Projectile Muzzle flash	ENE to WSW	N/K N/K	20-Jul, 02: 20-Jul, 03:
2 1km CE				i .	11/1	- 1 ∠U-JUI, U3:
2-4km SE 2-4km	Recorded	3	Widzzie Hasii			, , , , , , , , , , , , , , , , , , , ,

SMM camera at	3-5km S	Recorded	1	Muzzle flash		N/K	19-Jul, 22:44
Donetsk Filtration	0.5-1km S	Recorded	1	Projectile Projectile	N to S	N/K	19-Jul, 22:50
Station (15km N of	0.5-1km 0.5-1km	Recorded	1	Illumination	IN to S	11/11	19-301, 22.30
Donetsk)	SSW	Recorded	1	flare		N/K	19-Jul, 23:46
Donetsky	0.3-1km	Recorded	1	Haie		IN/IX	19-301, 23.40
	SSE	Recorded	1	Projectile	NE to SW	N/K	20-Jul, 00:55
	0.3-0.6km	Recorded	1	Tiojectile	NE to SW	11/11	20-341, 00.33
	SSW	Dagardad	1	Projectile	Wto E	NI/IZ	20 Jul 02:00
	0.5-1km	Recorded	1	Projectile	W to E	N/K	20-Jul, 03:09
	SSW	Recorded	1	Evaluation	Immaat	N/K	20 1.1 02.22
	0.1-0.5km	Recorded	1	Explosion	Impact	IN/IX	20-Jul, 03:32
		Recorded	1	D:4:1-	E to W	NI/IZ	20 1-1 02-20
	S 0.1.0.51	Recorded	1	Projectile	E to W	N/K	20-Jul, 03:38
	0.1-0.5km SSW	Recorded	3	Decidatila	NW to SE	N/K	20 1.1 02.41
SMM camera 1.5km NE	3-5km E	Recorded		Projectile	Undetermined	N/K	20-Jul, 03:41 19-Jul, 20:54
			1	Explosion			
of Hnutove	3-5km E	Recorded	1	Projectile	WNW to ESE	N/K	19-Jul, 20:54
(government-controlled,	3-5km			<b>5</b>	ggw. NDE	37.77	10.7.1.01.46
20km NE of Mariupol)	ESE	Recorded	9	Projectile	SSW to NNE	N/K	19-Jul, 21:46
	3-5km E	Recorded	3	Projectile	WSW to ENE	N/K	19-Jul, 21:49
	1-3km			<b>.</b>	W.G		10 7 7 7 7
	ESE	Recorded	10	Projectile	WSW to ENE	N/K	19-Jul, 21:53
	3-5km						
	ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 21:56
					WSW to ENE		
					(also recorded		
	1-3km				by Pyshchevyk		
	ESE	Recorded	24	Projectile	camera)	N/K	19-Jul, 21:58
					WSW to ENE		
					(also recorded		
	1-3km				by Pyshchevyk		
	ESE	Recorded	2	Projectile	camera)	N/K	19-Jul, 22:00
	3-5km						
	ESE	Recorded	1	Projectile	NE to SW	N/K	19-Jul, 22:11
	3-5km						
	ESE	Recorded	1	Explosion		N/K	19-Jul, 22:11
	3-5km						
	ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:11
	3-5km						
	ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:12
	3-5km						
	ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:14
	3-5km						
	ESE	Recorded	2	Muzzle flash		N/K	19-Jul, 22:21
	3-5km						
	ESE	Recorded	1	Projectile	NW to SE	N/K	19-Jul, 22:22
	3-5km S	Recorded	1	Projectile	WSW to ENE	N/K	19-Jul, 22:22
	3-5km E	Recorded	15	Projectile	NW to SE	N/K	19-Jul, 22:34
	3-5km E	Recorded	1	Projectile	NW to SE	N/K	19-Jul, 22:35
	3-5km			J		T	, ,
	ENE	Recorded	1	Projectile	S to N	N/K	19-Jul, 22:36
	3-5km E	Recorded	1	Projectile	NW to SE	N/K	19-Jul, 22:36
	3-5km E	Recorded	6	Projectile	SW to NE	N/K	19-Jul, 22:36
	3-5km E	Recorded	9	Projectile	WNW to ESE	N/K	19-Jul, 22:39
	3-3KIII L	Recorded		Trojectne	WNW to ESE	11/11	17-341, 22.37
					(also recorded		
					by Pyshchevyk		
	2-3km E	Recorded	1	Projectile	camera)	N/K	19-Jul, 22:43
	2-3km E	Recorded	1	Explosion	Airburst	N/K	19-Jul, 22:43
	2-3KIII E	Recorded	1	Explosion		1N/ IX	19-Jul, 22:43
					WNW to ESE		
					(also recorded		
	2.21	December 1	10	D:	by Pyshchevyk	NI/IZ	10 11 22 44
	2-3km E	Recorded	12	Projectile	camera)	N/K	19-Jul, 22:44
	2-3km E	Recorded	1	Projectile	WNW to ESE	N/K	19-Jul, 22:48
	3-5km		_				
	ESE	Recorded	2	Explosion	Undetermined	N/K	19-Jul, 22:49

SSE				1	ī		1	1
1.3km		3-5km	Dagandad	4	Designatile	WCW to END	NI/IZ	10 101 22.40
1-3km   Recorded   1   Projectile   Spyshchevyk   Spylin   Spyli		ESE	Recorded	4	Projectile		IN/K	19-Jul, 22:49
1-3km								
ENE		1-3km						
1-3km			Recorded	1	Projectile		N/K	19-Iul 22:49
1-3km		LIVE	Recorded	1	Trojectiic		11/11	17-341, 22.47
ENE   Recorded   1   Explosion   camera   N.K   19-Jul, 22:50		1-3km						
S.km			Recorded	1	Explosion		N/K	19-Iul 22:49
ESE   Recorded   1   Projectile   Wis   E   N/K   19-Jul, 22:50			Recorded	1	Lapiosion	Camera	11/11	17-341, 22.47
3-5km E   Recorded   1   Explosion   Undetermined   N/K   19-Jul, 22:50			Recorded	1	Projectile	W to F	N/K	19-Jul 22:50
3-5km E   Recorded   1   Explosion   Explosion   Explosion   Explosion   N/K   19-Jul, 22:50								
3-5km E   Recorded   1   Explosion   Recorded by Pyshchevyk camera   N/K   19-Jul, 22:52		3 3km E	Recorded	1	Explosion		1 1/12	17 341, 22.30
3-5km E   Recorded   1   Explosion   N/K   19-Jul, 22:50								
3-8m E   Recorded   1   Explosion   Camera   N/K   19-Jul, 22:50								
1-3km E   Recorded   1   Projectile   Calso recorded by Pyshchevyk camera   N/K   19-Jul, 22:52		3-5km E	Recorded	1	Explosion		N/K	19-Jul. 22:50
1-3km E   Recorded   1   Projectile   Recorded   Recorde								
1-3km E   Recorded   1   Projectile   Camera   N/K   19-Jul, 22:52								
1-3km E   Recorded   1   Projectile   Camera)   N/K   19-Jul, 22:52						,		
1-3km		1-3km E	Recorded	1	Projectile		N/K	19-Jul, 22:52
1-3km E   Recorded   1   Projectile   Cambray   N/K   19-Jul, 22:55					Ĭ			ĺ
1-3km E   Recorded   1   Projectile   SW to ENE (also recorded by Pyshchevyk camera)   N/K   19-Jul, 22:57								
1-3km   ESE   Recorded   1   Projectile   Camera)   N/K   19-Jul, 22:55								
1-3km   ESE   Recorded   1   Projectile   WSW to ENE (also recorded by Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera)   WSW to ENE (also recorded and py Pyshchevyk camera   WSW to ENE (also recorded and py Pyshchevyte (also valued)   WSW to ENE (also recorded and py Pyshchevyte (also valued)   WSW t		1-3km E	Recorded	1	Projectile		N/K	19-Jul, 22:55
1-3km   ESE   Recorded   1   Projectile   WWW to ENE (also recorded by Pyshchevyk camera)   N/K   19-Jul, 22:57					j			ĺ
ESE						(also recorded		
ESE		1-3km				by Pyshchevyk		
1-3km		ESE	Recorded	1	Projectile		N/K	19-Jul, 22:57
1.3km   ESE   Recorded   1   Projectile   camera)   N/K   19-Jul, 22:59						WSW to ENE		
ESE   Recorded   1   Projectile   camera)   N/K   19-Jul, 22:59						(also recorded		
1-3km		1-3km				by Pyshchevyk		
ESE		ESE	Recorded	1	Projectile	camera)	N/K	19-Jul, 22:59
SMM camera E of Lomakyne (government-controlled, 15km NE of Mariupol)   FNP   ENE   Recorded   1   Explosion   Airburst   N/K   19-Jul, 23:09   1-Jul   23:09   2-4km NE   Recorded   1   Explosion   Airburst   N/K   19-Jul, 23:09   2-4km NE   Recorded   1   Projectile   MNW to ESE   N/K   19-Jul, 23:02   2-Jul   00:49   00:49   00:		1-3km						
3-5km E   Recorded   3   Projectile   WNW to ESE   N/K   19-Jul, 23:09		ESE	Recorded	1	Explosion	Airburst	N/K	19-Jul, 22:59
3-5km E   Recorded   1   Explosion   Airburst   N/K   19-Jul, 23:09		3-5km E	Recorded	17	Projectile	WNW to ESE	N/K	19-Jul, 23:04
3-5km E   Recorded   2   Explosion   Undetermined   N/K   19-Jul, 23:22		3-5km E	Recorded	3	Projectile	WNW to ESE	N/K	19-Jul, 23:09
3-5km E   Recorded   1   Projectile   ESE to WNW   N/K   20-Jul, 00:49		3-5km E	Recorded	1		Airburst		19-Jul, 23:09
3-5km E   Recorded   1   Projectile   ESE to WNW   N/K   20-Jul, 00:49		3-5km E	Recorded	2	Explosion	Undetermined	N/K	19-Jul, 23:22
3-5km E   Recorded   1   Explosion   N/K   20-Jul, 00:49				1				
SMM camera E of Lomakyne (government-controlled, 15km NE of Mariupol)			Recorded	1	Projectile	ESE to WNW		20-Jul, 00:49
ENE		3-5km E	Recorded	1	Explosion		N/K	20-Jul, 00:49
1-3km   ENE	SMM camera E of	2-4km						
ENE		ENE	Recorded	3	Projectile	NW to SE	N/K	19-Jul, 21:14
2-4km								
ENE	15km NE of Mariupol)	ENE	Recorded	1	Explosion	Airburst	N/K	19-Jul, 22:04
2-4km NE   Recorded   1   Projectile   NW to SE   N/K   19-Jul, 22:45								
2-4km NE				2				
2-4km				1	, ,			
ENE   Recorded   1   Explosion   Airburst   N/K   19-Jul, 22:45		2-4km NE	Recorded	1	Projectile	In vertical flight	N/K	19-Jul, 22:45
2-4km NE   Recorded   1   Explosion   Undetermined   N/K   19-Jul, 22:49								
2-4km NE   Recorded   1   Explosion   Undetermined   N/K   19-Jul, 23:07				1				
2-4km		2-4km NE		1				
ENE Recorded 1 Projectile In vertical flight N/K 19-Jul, 23:30  2-4km ENE Recorded 1 Explosion Airburst N/K 19-Jul, 23:30  2-4km ENE Recorded 1 Projectile In vertical flight N/K 20-Jul, 00:50  2-4km ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  SMM camera at entryexit checkpoint in Maiorsk (government-  ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10			Recorded	1	Explosion	Undetermined	N/K	19-Jul, 23:07
2-4km ENE Recorded 1 Explosion Airburst N/K 19-Jul, 23:30  2-4km ENE Recorded 1 Projectile In vertical flight N/K 20-Jul, 00:50  2-4km ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  SMM camera at entry-exit checkpoint in Maiorsk (government- ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10								
ENE Recorded 1 Explosion Airburst N/K 19-Jul, 23:30  2-4km ENE Recorded 1 Projectile In vertical flight N/K 20-Jul, 00:50  2-4km ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  SMM camera at entryexit checkpoint in Maiorsk (government- ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10			Recorded	1	Projectile	In vertical flight	N/K	19-Jul, 23:30
2-4km ENE Recorded 1 Projectile In vertical flight N/K 20-Jul, 00:50  2-4km ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  SMM camera at entry- exit checkpoint in Maiorsk (government- ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10								
ENE Recorded 1 Projectile In vertical flight N/K 20-Jul, 00:50  2-4km ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  SMM camera at entry-exit checkpoint in Maiorsk (government-ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10			Recorded	1	Explosion	Airburst	N/K	19-Jul, 23:30
2-4km ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  SMM camera at entry- exit checkpoint in Maiorsk (government- ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10								
ENE Recorded 1 Explosion Airburst N/K 20-Jul, 00:50  SMM camera at entry- exit checkpoint in Maiorsk (government- ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10			Recorded	1	Projectile	In vertical flight	N/K	20-Jul, 00:50
SMM camera at entry-exit checkpoint in Maiorsk (government-ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10								
exit checkpoint in 3-4km Maiorsk (government- ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10				1		Airburst		
Maiorsk (government- ENE Recorded 40 Explosion Impacts N/K 19-Jul, 22:10			Recorded	20	Muzzle flash		N/K	19-Jul, 22:10
controlled, 45km NE of 3-4km E Recorded 1 Projectile SSW to NNE N/K 19-Jul, 22:10				40				
	controlled, 45km NE of	3-4km E	Recorded	1	Projectile	SSW to NNE	N/K	19-Jul, 22:10

Donetsk)	1-3km						
Donetsk)	ENE	Recorded	4	Projectile	NW to SE	N/K	19-Jul, 22:53
SMM camera at entry-	2-4km			,			ĺ
exit checkpoint in	NNE	Recorded	2	Projectile	SW to NE	N/K	20-Jul, 02:28
Marinka (government-	2-4km						
controlled, 23km SW of	NNE	Recorded	5	Projectile	ESE to WNW	N/K	20-Jul, 02:28
Donetsk)	2-4km	December	1	E1:	II. data	NI/IZ	20 1-1 02-20
	NNE 2-4km	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 02:29
	NNE	Recorded	1	Projectile	NW to SE	N/K	20-Jul, 02:29
SMM camera at Oktiabr	11112	recorded		Trojectiic	1111 to 52	11/11	20 541, 02.25
mine (non-government-							
controlled, 9km NW of				Illumination			
Donetsk city centre)	4-6km NE	Recorded	1	flare	In vertical flight	N/K	19-Jul, 21:49
SMM camera at entry-	3-5km S	Recorded	1	Projectile	E to W	N/K	19-Jul, 21:02
exit checkpoint in	3-5km S	Recorded	7	Projectile	W to E	N/K	19-Jul, 21:13
Pyshchevyk (government-controlled,	3-5km S	Recorded	12	Projectile	W to E	N/K	19-Jul, 21:14
25km NE of Mariupol)	3-5km S	Recorded	1	Projectile	W to E	N/K	19-Jul, 21:16
25km NE of Mariupor)	3-5km S	Recorded	1	Projectile	NE to SW	N/K	19-Jul, 21:17
	3-5km S 3-5km S	Recorded Recorded	2	Projectile Projectile	W to E W to E	N/K N/K	19-Jul, 21:19 19-Jul, 21:24
	3-5km S	Recorded	1	Projectile	In vertical flight	N/K	19-Jul, 21:24 19-Jul, 21:24
	3-5km	Recorded	1	1 Iojeciie	m vertical mgnt	1 N/ IX	17-Jul, 21.24
	SSE	Recorded	6	Projectile	W to E	N/K	19-Jul, 21:53
	3-5km S	Recorded	1	Projectile	In vertical flight	N/K	19-Jul, 21:55
	3-5km S	Recorded	4	Projectile	E to W	N/K	19-Jul, 21:56
	3-5km			<b>J</b>		_ ,	
	SSE	Recorded	24	Projectile	W to E	N/K	19-Jul, 21:58
	3-5km			<b>,</b>			
	SSE	Recorded	6	Projectile	W to E	N/K	19-Jul, 21:59
	3-5km S	Recorded	2	Muzzle flash		N/K	19-Jul, 22:00
					NW to SE (also		
					recorded by		
	2.51 0	D 1.1		D 1 47	Hnutove	NI/IZ	10 1 1 22 00
	3-5km S 1-3km S	Recorded Recorded	1	Projectile Explosion	camera)	N/K N/K	19-Jul, 22:00 19-Jul, 22:04
	3-5km	Recorded	1	Explosion		IN/IX	19-Jul, 22:04
	SSE	Recorded	1	Projectile	W to E	N/K	19-Jul, 22:07
	3-5km	recorded		Trojectiic	W to E	10/11	17 841, 22.07
	SSE	Recorded	3	Projectile	E to W	N/K	19-Jul, 22:07
	3-5km S	Recorded	6	Projectile	W to E	N/K	19-Jul, 22:08
	3-5km			<b>,</b>			·
	SSE	Recorded	4	Projectile	W to E	N/K	19-Jul, 22:09
	3-5km						
	SSE	Recorded	1	Projectile	In vertical flight	N/K	19-Jul, 22:10
	3-5km						10 7 1 00 10
	SSE	Recorded	22	Projectile	W to E	N/K	19-Jul, 22:10
	3-5km SSE	D1-1	1	M1- £11-		NI/IZ	10 1-1 22-10
	3-5km	Recorded	1	Muzzle flash		N/K	19-Jul, 22:10
	SSE	Recorded	1	Projectile	E to W	N/K	19-Jul, 22:10
	3-5km	Recorded	1	Trojectiic	E to W	11/12	17 341, 22.10
	SSE	Recorded	1	Explosion		N/K	19-Jul, 22:10
	3-5km S	Recorded	2	Burst	NE to SW	N/K	19-Jul, 22:10
	3-5km						
	SSE	Recorded	1	Projectile	E to W	N/K	19-Jul, 22:11
	3-5km						
	SSE	Recorded	1	Explosion	Airburst	N/K	19-Jul, 22:11
	3-5km		_			3.7/5-	
	SSE	Recorded	2	Projectile	E to W	N/K	19-Jul, 22:11
	3-5km	Daggadad	1	Droje stils	WtoE	NI/IV	10 1.1 22:11
	SSE 3-5km	Recorded	1	Projectile	W to E	N/K	19-Jul, 22:11
	SSE	Recorded	1	Projectile	E to W	N/K	19-Jul, 22:12
	3-5km	Recorded	1	Explosion	E tO W	N/K	19-Jul, 22:12
	JUNIII	Accorded	1 1	-Aprosion	I	1 1/ 13	17 041, 44.14

225	1	1	T	1	Г	T I
SSE			- · · · ·		3.7.77	10 7 1 00 15
3-5km S	Recorded	2	Projectile	W to E	N/K	19-Jul, 22:17
3-5km S	Recorded	1	Projectile	In vertical flight	N/K	19-Jul, 22:18
3-5km S	Recorded	2	Projectile	E to W	N/K	19-Jul, 22:18
3-5km S	Recorded	3	Projectile	W to E	N/K	19-Jul, 22:18
3-5km S	Recorded	3	Projectile	W to E	N/K	19-Jul, 22:19
1-3km S	Recorded	1	Burst	W to E	N/K	19-Jul, 22:19
3-5km S	Recorded	2	Projectile	W to E	N/K	19-Jul, 22:20
3-5km S	Recorded	2	Projectile	N to S	N/K	19-Jul, 22:20
3-5km S	Recorded	1	Projectile	In vertical flight	N/K	19-Jul, 22:21
3-5km						
SSE	Recorded	1	Muzzle flash		N/K	19-Jul, 22:21
3-5km						
SSE	Recorded	1	Projectile	E to W	N/K	19-Jul, 22:21
3-5km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:21
3-5km S	Recorded	4	Projectile	W to E	N/K	19-Jul, 22:21
3-5km S	Recorded	2	Projectile	W to E	N/K	19-Jul, 22:23
3-5km S	Recorded	1	Projectile	NNW to SSE	N/K	19-Jul, 22:24
3-5km S	Recorded	1	Explosion		N/K	19-Jul, 22:27
3-5km S	Recorded	2	Explosion		N/K	19-Jul, 22:28
3-5km S	Recorded	1	Projectile	NE to SW	N/K	19-Jul, 22:30
3-5km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:30
3-5km S	Recorded	1	Projectile	NW to SE	N/K	19-Jul, 22:30
3-5km S	Recorded	2	Projectile	W to E	N/K	19-Jul, 22:32
3-5km			,			,
SSE	Recorded	11	Projectile	W to E	N/K	19-Jul, 22:34
3-5km						
SSE	Recorded	1	Projectile	NE to SW	N/K	19-Jul, 22:34
3-5km S	Recorded	11	Projectile	W to E	N/K	19-Jul, 22:34
3-5km S	Recorded	2	Projectile	W to E	N/K	19-Jul, 22:35
3-5km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:39
3-5km S	Recorded	6	Projectile	NE to SW	N/K	19-Jul, 22:39
3-5km S	Recorded	22	Projectile	W to E	N/K	19-Jul, 22:40
3-5km 5	Recorded	22	Trojectife	WIOL	TV/IX	17-341, 22.40
SSE	Recorded	1	Muzzle flash		N/K	19-Jul, 22:43
3-5km S	Recorded	1	Projectile Projectile	NW to SE	N/K	19-Jul, 22:43
3-3KIII S	Recorded	1	Frojectile	W to E (also	IN/IX	19-Jul, 22.43
				recorded by		
2-3km				Hnutove		
SSE	Recorded	1	Drojectile		N/K	10 Jul 22:42
SSE	Recorded	1	Projectile	camera) NE to SW (also	N/K	19-Jul, 22:43
				recorded by		
2-3km S	Recorded	10	Drojectile	Hnutove	N/K	19-Jul, 22:44
	Recorded	10	Projectile	camera)	1 <b>V</b> / <b>I</b> \	19-Jul, 22:44
3-5km SSE	Daggadad	0	Droje stile	Wto E	NI/IZ	10 101 22:44
	Recorded	9	Projectile	W to E	N/K	19-Jul, 22:44
3-5km S	Recorded	3	Projectile	NNW to SSE	N/K	19-Jul, 22:45
2-4km S	Recorded	2	Projectile	NW to SE	N/K	19-Jul, 22:45
2-4km S	Recorded	1	Explosion	Impact	N/K	19-Jul, 22:45
3-5km S	Recorded	1	Projectile	N to S	N/K	19-Jul, 22:45
2-4km S	Recorded	4	Projectile	NE to SW	N/K	19-Jul, 22:45
3-5km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:47
3-5km					3.7.7-	
SSE	Recorded	1	Projectile	W to E	N/K	19-Jul, 22:48
3-5km S	Recorded	6	Projectile	W to E	N/K	19-Jul, 22:49
1-3km						
SSE	Recorded	1	Muzzle flash		N/K	19-Jul, 22:49
				E to W (also		
				recorded by		
1-3km				Hnutove		
SSE	Recorded	1	Projectile	camera)	N/K	19-Jul, 22:49
				Also recorded		
				by Hnutove		
1-3km S	Recorded	1	Explosion	camera	N/K	19-Jul, 22:49
3-5km S	Recorded	12	Projectile	W to E	N/K	19-Jul, 22:50

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3-5km S	Recorded	1	Muzzle flash		N/K	19-Jul, 22:50
3-5km						
SSE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:50
3-5km						
SSE	Recorded	5	Projectile	W to E	N/K	19-Jul, 22:51
3-5km S	Recorded	2	Projectile	NE to SW	N/K	19-Jul, 22:51
3-5km S	Recorded	1	Muzzle flash		N/K	19-Jul, 22:52
3-5km S	Recorded	1	Projectile	W to E	N/K	19-Jul, 22:52
3-5km S	Recorded	1	Explosion	W to E	N/K	19-Jul, 22:52
3-5km	Recorded	1	LAPIOSIOII		11/10	17-341, 22.32
SSE	Dagardad	1	Evalusion		N/K	10 1.1 22.52
SSE	Recorded	1	Explosion	W. F. (1	IN/IX	19-Jul, 22:52
				W to E (also		
. 2. 51				recorded by		
3-5km	D 1.1		D : .'1	Hnutove	NT /TZ	10 1 1 22 52
SSE	Recorded	1	Projectile	camera)	N/K	19-Jul, 22:52
3-5km						
SSE	Recorded	1	Muzzle flash		N/K	19-Jul, 22:55
				W to E (also		
				recorded by		
				Hnutove		
3-5km S	Recorded	1	Projectile	camera)	N/K	19-Jul, 22:55
3-5km S	Recorded	1	Projectile	E to W	N/K	19-Jul, 22:55
3-5km S	Recorded	7	Projectile	W to E	N/K	19-Jul, 22:56
3-5km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 22:56
3-5km S	Recorded	1	Muzzle flash	Chacterininea	N/K	19-Jul, 22:57
3-3KII 5	Recorded	1	Widzzie Hash	W to E (also	11/10	17-341, 22.37
				recorded by		
				Hnutove		
2.51 0	D 1.1	1	D		NI/IZ	10 1 1 22 57
3-5km S	Recorded	1	Projectile	camera)	N/K	19-Jul, 22:57
3-5km S	Recorded	1	Muzzle flash		N/K	19-Jul, 22:59
				W to E (also		
				recorded by		
				Hnutove		
3-5km S	Recorded	1	Projectile	camera)	N/K	19-Jul, 22:59
3-5km S	Recorded	1	Projectile	E to W	N/K	19-Jul, 22:59
3-5km S	Recorded	12	Projectile	W to E	N/K	19-Jul, 23:01
3-5km			_			
SSE	Recorded	2	Explosion	Undetermined	N/K	19-Jul, 23:01
3-5km S	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 23:01
3-5km S	Recorded	2	Projectile	E to W	N/K	19-Jul, 23:12
3-5km S	Recorded	20	Projectile	W to E	N/K	19-Jul, 23:17
3-5km S	Recorded	8	Projectile	W to E	N/K	19-Jul, 23:19
		_	_			
3-5km S 3-5km S	Recorded	1	Explosion	Airburst	N/K	19-Jul, 23:19
J-JKIII S	Recorded					10 1.1 22.20
	D 1 1	1	Explosion	Undetermined	N/K	19-Jul, 23:20
3-5km S	Recorded	2	Projectile	E to W	N/K	19-Jul, 23:27
3-5km S 3-5km S	Recorded	2	Projectile Projectile	E to W W to E	N/K N/K	19-Jul, 23:27 19-Jul, 23:27
3-5km S 3-5km S 3-5km S	Recorded Recorded	2	Projectile Projectile Projectile	E to W W to E W to E	N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30
3-5km S 3-5km S	Recorded	2	Projectile Projectile	E to W W to E	N/K N/K	19-Jul, 23:27 19-Jul, 23:27
3-5km S 3-5km S 3-5km S	Recorded Recorded	6	Projectile Projectile Projectile	E to W W to E W to E	N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30
3-5km S 3-5km S 3-5km S 3-5km S	Recorded Recorded Recorded	2 6 1	Projectile Projectile Projectile Explosion	E to W W to E W to E Airburst	N/K N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S	Recorded Recorded Recorded	2 6 1	Projectile Projectile Projectile Explosion	E to W W to E W to E Airburst Undetermined	N/K N/K N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S	Recorded Recorded Recorded Recorded Recorded	2 6 1 1	Projectile Projectile Projectile Explosion Explosion Projectile	E to W W to E W to E Airburst Undetermined E to W	N/K N/K N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km SSE 3-5km S	Recorded Recorded Recorded Recorded Recorded Recorded	2 6 1 1 1	Projectile Projectile Projectile Explosion Explosion Projectile Explosion	E to W W to E W to E Airburst Undetermined E to W Undetermined	N/K N/K N/K N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S SSE 3-5km S 3-5km S	Recorded Recorded Recorded Recorded Recorded	2 6 1 1 1	Projectile Projectile Projectile Explosion Explosion Projectile	E to W W to E W to E Airburst Undetermined E to W	N/K N/K N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 2-4km	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	2 6 1 1 1 1	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile	E to W W to E W to E Airburst Undetermined E to W Undetermined W to E	N/K N/K N/K N/K N/K N/K N/K N/K N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:34
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 2-4km SSE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	2 6 1 1 1 1 1 1 3	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile Projectile	E to W W to E W to E Airburst Undetermined E to W Undetermined W to E E to W	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:34
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 2-4km S 2-4km SSE 2-4km S	Recorded	2 6 1 1 1 1 1 1 3	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile Projectile Projectile	E to W W to E W to E Airburst Undetermined E to W Undetermined W to E E to W W to E	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 2-4km S 2-4km S 2-4km S 2-4km S	Recorded	2 6 1 1 1 1 1 1 1 3 1 4	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile Projectile Projectile Projectile	E to W W to E W to E Airburst Undetermined E to W Undetermined W to E E to W W to E W to E	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S SSE 3-5km S 2-4km S 2-4km S 2-4km S 3-5km S	Recorded	2 6 1 1 1 1 1 1 3 1 4	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile Projectile Projectile Projectile Projectile Projectile	E to W W to E W to E Airburst Undetermined E to W Undetermined W to E E to W W to E E to W E to W	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35
3-5km S 2-4km S 2-4km S 2-4km S 2-4km S 3-5km S 3-5km S	Recorded	2 6 1 1 1 1 1 3 1 4 1	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile Projectile Projectile Projectile Projectile Projectile Burst	E to W W to E W to E Airburst Undetermined  E to W Undetermined W to E E to W W to E E to W W to E W to E E to W W to E	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:52 19-Jul, 23:58
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S SSE 3-5km S 2-4km S 2-4km S 2-4km S 3-5km S 3-5km S	Recorded	2 6 1 1 1 1 1 1 3 1 4 1 1	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile	E to W W to E W to E Airburst Undetermined  E to W Undetermined W to E  E to W W to E  E to W W to E W to E  E to W W to E	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:52 19-Jul, 23:58 19-Jul, 23:59
3-5km S 2-4km S 2-4km S 2-4km S 3-5km S 3-5km S	Recorded	2 6 1 1 1 1 1 3 1 4 1 1 4 3	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile	E to W W to E W to E Airburst Undetermined  E to W Undetermined W to E E to W W to E E to W W to E W to E E to W W to E	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:52 19-Jul, 23:58
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S SSE 3-5km S 2-4km S 2-4km S 2-4km S 3-5km S 3-5km S 3-5km S	Recorded	2 6 1 1 1 1 1 1 3 1 4 1 1	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile	E to W W to E W to E Airburst Undetermined  E to W Undetermined W to E  E to W W to E  E to W W to E W to E  E to W W to E	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:52 19-Jul, 23:58 19-Jul, 23:59
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S SSE 3-5km S 2-4km S 2-4km S 2-4km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S	Recorded	2 6 1 1 1 1 1 3 1 4 1 1 4 3	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile	E to W W to E W to E Airburst Undetermined  E to W Undetermined W to E E to W W to E W to E E to W W to E NW to E NW to SE	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:31 19-Jul, 23:34 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:52 19-Jul, 23:58 19-Jul, 23:59 20-Jul, 00:00 20-Jul, 00:13
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S SSE 3-5km S 2-4km S 2-4km S 3-5km S 3-5km S 3-5km S 2-4km S 2-4km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S	Recorded	2 6 1 1 1 1 1 3 1 4 1 1 4 3 3 3 2	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile	E to W W to E W to E Airburst Undetermined  E to W Undetermined W to E E to W W to E W to E E to W W to E E to W W to E E to W W to E	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:31 19-Jul, 23:34 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:52 19-Jul, 23:59 20-Jul, 00:00 20-Jul, 00:13 20-Jul, 01:36
3-5km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S SSE 3-5km S 2-4km S 2-4km S 2-4km S 3-5km S 3-5km S 3-5km S 3-5km S 3-5km S	Recorded	2 6 1 1 1 1 1 3 1 4 1 1 4 3 3 3	Projectile Projectile Projectile Explosion Explosion Projectile Explosion Projectile	E to W W to E W to E Airburst Undetermined  E to W Undetermined W to E E to W W to E W to E E to W W to E NW to E NW to SE	N/K	19-Jul, 23:27 19-Jul, 23:27 19-Jul, 23:30 19-Jul, 23:30 19-Jul, 23:31 19-Jul, 23:33 19-Jul, 23:34 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:35 19-Jul, 23:52 19-Jul, 23:58 19-Jul, 23:59 20-Jul, 00:00 20-Jul, 00:13

	2-4km S	Recorded	1	Projectile	E to W	N/K	20-Jul, 03:21
SE edge of Avdiivka	3-4km NE	Heard	2	Explosion	Undetermined	N/K	20-Jul, 09:27
(government-controlled,	2-3km NE	Heard	1	Explosion	Undetermined	N/K	20-Jul, 10:01
17km N of Donetsk)	2 38111112	Ticura		Expression	Chacterininea	Small	20 541, 10.01
,	2km NE	Heard	4	Shot		arms	20-Jul, 10:14
	3-4km NE	Heard	1	Explosion	Undetermined	N/K	20-Jul, 10:17
							20-Jul, 10:19-
	2-3km NE	Heard	7	Explosion	Undetermined	N/K	10:21
	2-3km NE	Heard	1	Explosion	Undetermined	N/K	20-Jul, 10:28
	2-3km SE	Heard	1	Explosion	Undetermined	N/K	20-Jul, 11:35
About 3km NW of	2km					Small	
Pervomaiske	WSW	Heard	6	Shot		arms	20-Jul, 12:44
(government-	21					G 11	
controlled,17km NW of Donetsk)	2km WSW	Hoond	1	Shot		Small	20 1.1 12.50
About 6km NW of	2km N	Heard Heard	1	Explosion	Undetermined	arms N/K	20-Jul, 12:50 20-Jul, 11:38
Donetsk City centre	2km N	Heard	1	Explosion	Undetermined	N/K	20-Jul, 11:57
(non-government-	ZKIII IN	Hearu	1	Explosion	Undetermined	IV/IX	20-Jul, 11.37
controlled)	2km N	Heard	1	Explosion	Undetermined	N/K	20-Jul, 12:01
About 1km NW of	1-2km						
railway station in	NW	Heard	3	Shot		HMG	20-Jul, 10:14
Yasynuvata (non-						Small	
government-controlled,	1-2km SE	Heard	15	Shot		arms	20-Jul, 10:51
16km NE of Donetsk)						Small	
	1-2km SE	Heard	2	Burst		arms	20-Jul, 10:51
	0.7-0.8km						
	SE	Heard	1	Explosion	Undetermined	N/K	20-Jul, 12:10
About 2km SW of	3-5km	** 1			1	27/77	20-Jul, 10:00-
Pyshchevyk	ESE	Heard	1	Explosion	Undetermined	N/K	10:03
(government-controlled, 25km NE of Mariupol)	3-5km	Heard and	2	E1:	I	NI/IZ	20-Jul, 10:00-
23kiii NE 01 WiaiTup01)	ESE 3-5km	saw Heard and	3	Explosion	Impact	N/K	10:03
	NNE	saw	1	Explosion	Impact	N/K	20-Jul, 10:15
	3-5km	Heard and	1	Explosion	Impact	TV/IX	20-301, 10.13
	NNE	saw	1	Explosion	Impact	N/K	20-Jul, 10:22
	3-5km NE	Heard	1	Explosion	Undetermined	N/K	20-Jul, 10:38
About 1.2km SW of		Heard and				,	20-Jul, 11:45-
Lebedynske	3-5km NE	saw	3	Explosion	Impact	N/K	11:47
(government-controlled,				_			20-Jul, 12:20-
16km NE of Mariupol)	3-5km NE	Heard	5	Explosion	Undetermined	N/K	12:23
Svitlodarsk	4-5km						19-Jul, 19:12-
(government-controlled,	SW	Heard	3	Explosion	Undetermined	N/K	19:13
57km NE of Donetsk)	4-5km						19-Jul, 22:00-
	SW	Heard	5	Burst		HMG	22:01
Horlivka (non-	4-6km	TT 1	1	E L.	77 14 1	NI/IZ	10 1 1 20 05
government-controlled, 39km NE of Donetsk)	NW 4 6lrm	Heard	1	Explosion	Undetermined	N/K	19-Jul, 20:05
39kiii NE 01 Dolletsk)	4-6km NW	Heard	1	Burst		HMG	19-Jul, 20:07
	4-6km	Hearu	1	Duist		TIMO	19-301, 20.07
	NW	Heard	1	Explosion	Undetermined	N/K	19-Jul, 20:11
	4-6km	Ticuru	1	Explosion	Chacterninea	14/12	17 341, 20.11
	NW	Heard	1	Burst		HMG	19-Jul, 20:15
	4-6km						
	NW	Heard	1	Explosion	Undetermined	N/K	19-Jul, 20:29
	4-6km						
	NW	Heard	2	Explosion	Undetermined	N/K	19-Jul, 20:30
			1				20-Jul, 07:35-
	4-6km SE	Heard	4	Explosion	Undetermined	N/K	07:40
About 500m NE of	1-2km E	Heard	2	Explosion	Undetermined	N/K	20-Jul, 09:28
Kamianka (government-	5-7km SE	Heard	2	Explosion	Undetermined	N/K	20-Jul, 10:02
controlled, 20km N of	2.21 05	TT 1		D.		Small	20 1 1 10 25
Donetsk)	2-3km SE	Heard	2	Burst	TI-d. ( 1	arms	20-Jul, 10:25
CMM sames N - 1	1-2km E	Heard	1	Explosion	Undetermined	N/K	20-Jul, 10:39
SMM camera on N edge of Popasna	2-4km ESE	Recorded	2	Projectile	NNE to SSW	N/K	19-Jul, 22:31
of Fopasiia	ESE	Recolued		rrojecuie	I MUT IO 99 M	1 N / IX	15-Jul, 22:51

	2.41	T	ı	T	Т		<u></u>
(government-controlled, 69km W of Luhansk)	2-4km ESE	Recorded	3	Projectile	NNE to SSW	N/K	19-Jul, 22:56
OFKIII W OI Lulialisk)	2-4km	Recorded	3	Tiojectile	TANE to SS W	IV/IX	19-Jul, 22.30
	ESE	Recorded	1	Projectile	NNE to SSW	N/K	19-Jul, 22:58
	2-4km						
	ESE	Recorded	3	Projectile	NNE to SSW	N/K	19-Jul, 23:00
	2-4km	Ddd	2	D:4:1-	NINE 4- CCW	NI/IZ	10 1-1 22-10
	ESE 2-4km	Recorded	2	Projectile	NNE to SSW	N/K	19-Jul, 23:19
	ESE	Recorded	1	Projectile	NNE to SSW	N/K	19-Jul, 23:23
	2-4km						
	ESE	Recorded	1	Projectile	NNE to SSW	N/K	20-Jul, 01:44
	2-4km						
	ESE 2-4km	Recorded	8	Projectile	SSW to NNE	N/K	20-Jul, 01:49
	Z-4km ESE	Recorded	4	Projectile	NNE to SSW	N/K	20-Jul, 01:55
	2-4km	Recorded	-	Trojectiic	TATAL TO SS W	11/11	20-3u1, 01.33
	ESE	Recorded	3	Projectile	SSW to NNE	N/K	20-Jul, 02:29
	2-4km			<u> </u>			
	ESE	Recorded	22	Projectile	SSW to NNE	N/K	20-Jul, 02:34
SMM camera in Zolote					NNW to SSE	ļ	
(government-controlled, 60km W of Luhansk)					(assessed as outside the		
OOKIII W OI Lulialisk)					disengagement	ļ	
	3-5km E	Recorded	2	Projectile	area)	N/K	19-Jul, 21:43
					In vertical flight		
					(assessed as	ļ	
					outside the	ļ	
	3-5km E	Recorded	2	Projectile	disengagement area)	N/K	19-Jul, 21:46
	J-JKIII L	Recorded		Trojectiic	NNW to SSE	TV/IX	17-341, 21.40
					(assessed as	ļ	
					outside the	ļ	
					disengagement		
	3-5km E	Recorded	15	Projectile	area) NNW to SSE	N/K	19-Jul, 21:56
					(assessed as	ļ	
					outside the	ļ	
	3-5km				disengagement	ļ	
	ESE	Recorded	2	Projectile	area)	N/K	19-Jul, 22:34
					In vertical flight	ļ	
				T11:	(assessed as inside the	ļ	
	2-3km SE	Recorded	1	Illumination flare	disengagement)	N/K	19-Jul, 22:39
	2 JAIII DL	recorded	1	-1410	In vertical flight	11/11	17 001, 22.37
					(unable to		
					assess whether	Anti-	
					inside or outside the	aircraft	
					disengagement	gun (ZU- 23,	
	3-5km S	Recorded	16	Projectile	area)	23, 23mm)	19-Jul, 23:28
				J	WNW to ESE	,	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
					(assessed as		
					outside the		
	3-5km E	Recorded	6	Projectile	disengagement area)	N/K	20-Jul, 00:56
	J-JKIII E	Accorded	0	1 Tojecine	WNW to ESE	1 1/ 12	20-301, 00.30
					(assessed as		
					outside the		
					disengagement		
	3-5km E	Recorded	1	Projectile	area)	N/K	20-Jul, 01:07
					N to S (assessed as outside the		
	3-5km				disengagement		
-				i		1	,
	SW 3-5km E	Recorded Recorded	1	Projectile Projectile	area) NNW to SSE	N/K N/K	20-Jul, 01:12 20-Jul, 01:45

	ı	Т		Т	1.	1	1
					(assessed as		
					outside the disengagement		
					area)		
					NNW to SSE		
					(assessed as		
					outside the		
					disengagement		
	3-5km E	Recorded	2	Projectile	area)	N/K	20-Jul, 01:46
					NNW to SSE		
					(assessed as		
					outside the		
	3-5km E	Recorded	20	Projectile	disengagement area)	N/K	20-Jul, 02:30
	3-3KIII L	Recorded	20	Trojectiic	NNW to SSE	14/1	20-341, 02.30
					(assessed as		
					outside the		
					disengagement		
	3-5km E	Recorded	2	Projectile	area)	N/K	20-Jul, 02:34
N edge of Popasna							19-Jul, 18:24-
(government-controlled,	6-8km NE	Heard	2	Explosion	Undetermined	N/K	18:26
69km W of Luhansk)	2.41 337	77 1	1	E 1 '	TT 14 ' 1	NI/IZ	20-Jul, 13:00-
	2-4km W	Heard	1	Explosion	Undetermined	N/K	13:01 20-Jul, 13:00-
	2-4km W	Heard	5	Burst		N/K	13:01
	2-4KIII VV	Tiearu	3	Duist		IN/IX	20-Jul, 13:00-
	2-4km W	Heard	2	Shot		N/K	13:01
					Assessed as	- "	
					inside the		
	4-5km				disengagement		
	NNE	Heard	6	Burst	area	HMG	20-Jul, 13:03
					Undetermined		
0.25km SE of Stanytsia					(assessed as		
Luhanska bridge (non-	1-2km				outside the		
government-controlled, 15km NE of Luhansk)	NW	Heard	1	Explosion	disengagement area)	N/K	20-Jul, 15:17
SMM camera in	1444	Ticaru	1	Explosion	arca)	TV/IX	20-341, 13.17
Berezove (government-							
controlled, 31km SW of							
Donetsk)	3-4km SE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 21:26
SMM camera in	2-4km						
Chermalyk	SSE	Recorded	1	Projectile	NE to SW	N/K	21-Jul, 03:49
(government-controlled,	2-4km						
31km NE of Mariupol)	SSE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 20:58
	2-4km	D 1.1	1	г 1 :	1111	NI/IZ	20 1 1 21 01
	SSE 2-4km	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 21:01
	SSE	Recorded	1	Projectile	WSW to ENE	N/K	20-Jul, 21:03
	2-4km	Accorded	1	1 rojecuie	WOW WEINE	1 N/ IX	20-Jui, 21.03
	SSE	Recorded	1	Projectile	ENE to WSW	N/K	20-Jul, 21:09
	2-4km						
	SSE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 21:09
	2-4km						
	SSE	Recorded	2	Projectile	NNE to SSW	N/K	20-Jul, 21:14
	2-4km						
	SSE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 21:18
	2-4km						20 7 7 25 5
	SSE	Recorded	20	Projectile	WSW to ENE	N/K	20-Jul, 21:29
	2-4km	Dagged - J	1	Duois at:1-	ENE to WCW	NI/IZ	20 Jul 21:20
	SSE 2.4km	Recorded	1	Projectile	ENE to WSW	N/K	20-Jul, 21:30
	2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 21:37
	2-4km	Accorded	1	2Api0si0II	Ondetermineu	1 1/ 11	20-Jui, 21.J/
	SSE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 21:41
	2-4km						
	SSE	Recorded	1	Projectile	WSW to ENE	N/K	20-Jul, 21:45
	1					•	

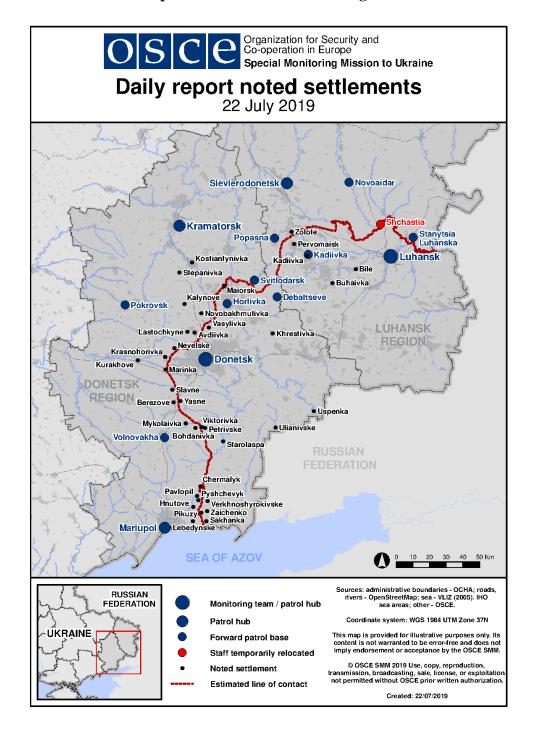
		I		I =	Τ	1 27/77	
	2-4km SE	Recorded	1	Explosion	Impact	N/K	20-Jul, 21:45
	1-3km						
	SSE	Recorded	2	Projectile	NNE to SSW	N/K	20-Jul, 21:56
	1-3km						
	SSE	Recorded	5	Projectile	NNE to SSW	N/K	20-Jul, 22:01
	2-4km						
	SSE	Recorded	1	Explosion	Airburst	N/K	20-Jul, 22:02
	2-4km SE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 22:02
	2-4km						
	SSE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 22:11
	2-4km			•			
	SSE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 22:12
	2-4km			•			,
	SSE	Recorded	1	Projectile	NNE to SSW	N/K	20-Jul, 22:12
	2-4km			.,			,
	SSE	Recorded	8	Projectile	NNE to SSW	N/K	20-Jul, 22:14
	2-4km	recorded		Trojectiic	TITLE TO BE TO	11/11	20 341, 22.11
	SSE	Recorded	16	Projectile	NNE to SSW	N/K	20-Jul, 22:16
	2-4km	Recorded	10	Tiojectiic	TATAL TO SS W	11/10	20-341, 22.10
	SSE	Recorded	1	Projectile	N to S	N/K	20-Jul, 22:44
		Recorded	1	Frojectile	NIOS	IN/IX	20-Jul, 22.44
	2-4km	Doggad- J	2	Deciset!1-	NINE to COM	NI/IZ	20 1 22.11
	SSE	Recorded	3	Projectile	NNE to SSW	N/K	20-Jul, 23:11
	2-4km	D 1.1	1	Б 1 .	A * 1	NT/TZ	20 1 1 22 25
22.07	SSE	Recorded	1	Explosion	Airburst	N/K	20-Jul, 23:35
SMM camera at			_	Illumination			
Donetsk Filtration	2-4km S	Recorded	1	flare	In vertical flight	N/K	20-Jul, 23:01
Station (15km N of	0.7-1km S	Recorded	1	Projectile	E to W	N/K	20-Jul, 23:23
Donetsk)	0.7-1km S	Recorded	1	Explosion	Undetermined	N/K	21-Jul, 00:33
	0.7-1km S	Recorded	1	Explosion	Undetermined	N/K	21-Jul, 02:07
SMM camera 1.5km NE	3-5km E	Recorded	5	Projectile	N to S	N/K	20-Jul, 21:18
of Hnutove	3-5km						
(government-controlled,	ENE	Recorded	2	Projectile	N to S	N/K	20-Jul, 21:30
20km NE of Mariupol)	3-5km E	Recorded	3	Projectile	N to S	N/K	20-Jul, 21:32
•	3-5km E	Recorded	2	Muzzle flash		N/K	20-Jul, 21:32
	3-5km E	Recorded	10	Projectile	SW to NE	N/K	20-Jul, 21:49
	3-5km	110001404	10	Trojectiie	211 10112	1,712	20 001, 21115
	ENE	Recorded	1	Muzzle flash		N/K	20-Jul, 21:58
	3-5km	Recorded	-	Widzele Hash		14/14	20 341, 21.30
	ENE	Recorded	1	Projectile	N to S	N/K	20-Jul, 22:02
	3-5km	Recorded	1	Trojectiic	14103	14/10	20-341, 22.02
	ENE	Recorded	2	Muzzle flash		N/K	20-Jul, 22:44
	3-5km	Recorded		Wiuzzie Hasii		IN/IX	20-Jul, 22.44
	5-5km ENE	Recorded	1	D:4:1-	SW to NE	N/K	20 1-1 22.44
	ENE	Recorded	1	Projectile		IN/IX	20-Jul, 22:44
					S to N (also		
	2.51				recorded by		
	3-5km	D 1.1		D : .''	Pyshchevyk	NT/TZ	20 1 1 22 52
	ESE	Recorded	2	Projectile	camera)	N/K	20-Jul, 22:52
0.07	3-5km E	Recorded	1	Muzzle flash	T. 1	N/K	20-Jul, 22:56
SMM camera at entry-	1-3km E	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 22:19
exit checkpoint in	=			Illumination			20 1 1 22 22
Maiorsk (government-	2-4km E	Recorded	1	flare	In vertical flight	N/K	20-Jul, 22:22
controlled, 45km NE of	2-4km E	Recorded	1	Projectile	In vertical flight	N/K	20-Jul, 22:34
Donetsk)	2-4km E	Recorded	1	Explosion	Undetermined	N/K	21-Jul, 01:35
SMM camera at entry-	1-3km						
exit checkpoint in	NNE	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 22:25
Marinka (government-	1-3km N	Recorded	2	Explosion	Airburst/impact	N/K	20-Jul, 22:26
controlled, 23km SW of	1-3km N	Recorded	1	Projectile	In vertical flight	N/K	20-Jul, 22:26
Donetsk)	1-3km N	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 22:46
	1-3km N	Recorded	6	Projectile	SW to NE	N/K	20-Jul, 22:56
SMM camera at entry-	3-5km S	Recorded	1	Projectile	W to E	N/K	20-Jul, 21:18
	3-5km S	Recorded	4	Projectile	W to E	N/K	20-Jul, 21:27
exit checkpoint in				Projectile	In vertical flight	N/K	20-Jul, 21:35
exit checkpoint in Pyshchevyk		Recorded		LIOECTIE			
Pyshchevyk	3-5km S	Recorded Recorded	1 4	•			
Pyshchevyk (government-controlled,	3-5km S 3-5km S	Recorded	4	Projectile	W to E	N/K	20-Jul, 21:35
Pyshchevyk	3-5km S			•			

		T	1	T	1	_	1
	SSE					37/	
	3-5km S	Recorded	10	Projectile	W to E	N/K	20-Jul, 21:46
	3-5km S	Recorded	2	Projectile	W to E	N/K	20-Jul, 21:57
	3-5km S	Recorded	13	Projectile	W to E	N/K	20-Jul, 22:02
	3-5km S	Recorded	1	Projectile	W to E	N/K	20-Jul, 22:04
	3-5km S	Recorded	2	Projectile	W to E	N/K	20-Jul, 22:22
	3-5km S	Recorded	3	Projectile	W to E	N/K	20-Jul, 22:23
	3-5km S	Recorded	1	Explosion	Undetermined	N/K	20-Jul, 22:31
	3-5km S	Recorded	4	Projectile	W to E	N/K	20-Jul, 22:37
	3-5km						
	SSE	Recorded	2	Projectile	ENE to WSW	N/K	20-Jul, 22:48
					W to E (also		, , , , ,
					recorded by		
					Hnutove		
	3-5km S	Recorded	2	Projectile	camera)	N/K	20-Jul, 22:52
	3-5km S	Recorded	1	Projectile	W to E	N/K	20-Jul, 23:06
	4-6km S	Recorded	4	Projectile	W to E	N/K	20-Jul, 23:44
	4-6km S	Recorded	2	Projectile	W to E	N/K	20-Jul, 23:45
	4-6km S	Recorded	3	Projectile	W to E	N/K	20-Jul, 23:49
SE part of Avdiivka	4-0KIII 5	Recorded	3	Trojectiic	WIOL	TV/IX	20-3u1, 23.47
(government-controlled,							
17km N of Donetsk)	2-3km SE	Heard	1	Explosion	Undetermined	N/K	21-Jul, 09:57
Svitlodarsk	4-5km	115414	1	Explosion	Ondetermined	1 N / IX	21-Jul, 09.37
(government-controlled,	SW	Hoond	2	Explosion	Undetermined	NI/IZ	20 Ivl 10.00
57km NE of Donetsk)		Heard		Explosion	Undetermined	N/K	20-Jul, 19:00
3/kiii NE of Dolletsk)	4-5km	111	7	D4		IIMC	20-Jul, 19:20-
	SW	Heard	/	Burst		HMG	19:22
	4.51 0	77 1	10	D 4		IIMC	20-Jul, 19:45-
	4-5km S	Heard	10	Burst		HMG	19:48
	4.50 0	** 1	_	F 1 .		37.77	20-Jul, 20:00-
	4-5km S	Heard	5	Explosion	Undetermined	N/K	20:03
			_				20-Jul, 20:46-
	4-5km SE	Heard	5	Explosion	Undetermined	N/K	20:49
	4-5km						20-Jul, 20:47-
	SW	Heard	8	Burst		HMG	20:50
	5-6km SE	Heard	1	Explosion	Undetermined	N/K	20-Jul, 21:00
	4-5km						20-Jul, 21:40-
	SW	Heard	4	Burst		HMG	21:42
SMM camera in Zolote					NW to SE		
(government-controlled,					(assessed as		
60km W of Luhansk)					outside the		
	3-5km				disengagement		
	SSW	Recorded	10	Projectile	area)	N/K	20-Jul, 20:57
					In vertical		
			1		flight, assessed		1
1					as inside the		
	2-4km SE	Recorded	5	Projectile	as inside the disengagement area	N/K	20-Jul, 20:58
	2-4km SE	Recorded	5	Projectile	as inside the disengagement area  In vertical	N/K	20-Jul, 20:58
	2-4km SE	Recorded	5	Projectile	as inside the disengagement area In vertical flight, unable to	N/K	20-Jul, 20:58
	2-4km SE	Recorded	5	Projectile	as inside the disengagement area In vertical flight, unable to assess whether	N/K	20-Jul, 20:58
	2-4km SE	Recorded	5	Projectile	as inside the disengagement area In vertical flight, unable to	N/K	20-Jul, 20:58
	2-4km SE	Recorded	5	Projectile	as inside the disengagement area In vertical flight, unable to assess whether	N/K	20-Jul, 20:58
					as inside the disengagement area  In vertical flight, unable to assess whether inside or		
	2-4km SE 2-4km S	Recorded  Recorded	5	Projectile Projectile	as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area	N/K	20-Jul, 20:58 20-Jul, 22:34
					as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement		
					as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area		
					as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area  In vertical		
					as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area  In vertical flight, unable to		
					as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area  In vertical flight, unable to assess whether		
					as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area  In vertical flight, unable to assess whether inside or		
	2-4km S				as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area  In vertical flight, unable to assess whether inside or outside the outside the disengagement area		
	2-4km S	Recorded	7	Projectile	as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area	N/K	20-Jul, 22:34
	2-4km S	Recorded	7	Projectile	as inside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area  In vertical flight, unable to assess whether inside or outside the disengagement area	N/K	20-Jul, 22:34
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In vertical	
flight, unable to	
assess whether	
inside or	
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disengagement	1 00 11
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NNW to SSE	
(assessed as	
outside the disengagement	
	n1 00.47
	ul, 00:47 ul, 18:56-
N edge of Popasna   Heard and   20-Ji   Government-controlled, 4-7km SE   saw   34   Explosion   Undetermined   N/K   19:5	
	ul, 18:56-
NE Heard 10 Explosion Undetermined N/K 19:5	
	ul, 18:56-
ESE saw 21 Explosion Undetermined N/K 19:5	
	ul, 18:56-
6-10km S Heard 6 Explosion Undetermined N/K 19:5	
	ul, 18:56-
ESE Heard 93 shot arms 19:5'	
	ul, 18:56-
ESE Heard 5 Burst HMG 19:5'	
	ul, 20:07-
SSE Heard 9 Explosion Undetermined N/K 20:20	
	ul, 20:07-
ESE Heard 18 shot arms 20:3.	5
	ul, 20:08-
ESE Heard 3 Burst HMG 20:3.	
	ul, 01:13-
5-7km E Heard 27 Burst HMG 01:3	
	ul, 01:13-
5-7km E Heard 20 shot arms 01:3	
	1
5-7km E Heard 2 Explosion Undetermined N/K 02:0	ul, 02:01-
5-7km E         Heard         4         Burst and         Small         21-June	ul, 02:01-

				shot		arms	02:03
Kadiivka (formerly						Artillery	
Stakhanov, non-	7-9km					(type	20-Jul, 19:10-
government-controlled,	WNW	Heard	41	Explosion	Outgoing	N/K)	19:45
50km W of Luhansk)	14-16km						20-Jul, 19:10-
	WNW	Heard	20	Explosion	Undetermined	N/K	19:45
	10-15km						20-Jul, 20:05-
	W	Heard	12	Explosion	Undetermined	N/K	20:08

## Map of Donetsk and Luhansk regions<sup>2</sup>



<sup>2</sup> The SMM is deployed to ten locations throughout Ukraine – Kherson, Odessa, Lviv, Ivano-Frankivsk, Kharkiv, Donetsk, Dnipro, Chernivtsi, Luhansk and Kyiv – as per Permanent Council Decision 1117 of 21 March 2014. This map of eastern Ukraine is meant for illustrative purposes and indicates locations mentioned in the report, as well as those where the SMM has offices (monitoring teams, patrol hubs, and forward patrol bases) in Donetsk and Luhansk regions. (In red: forward patrol bases from which SMM staff has temporarily relocated based on recommendations of security experts from participating States as well as SMM security considerations).