## Table of ceasefire violations as of 5 November 2017<sup>1</sup>

SMM position	Location of	Observation	Type of	Date/time
4	event	Recorded 1 undetermined explosion	weapon/ammunition	
		(assessed as outside disengagement		1 November, 16:55
		area)		1 November, 10.33
	6-8km WNW	Recorded 1 undetermined explosion		
		(assessed as outside disengagement		1 November, 17:00
		area)		,
		Recorded 8 tracers from S to N		
	1-3km S	(assessed as inside disengagement		1 November, 23:13
		area)		<u> </u>
(1) (1) (1)	100-500m	Recorded 2 tracers from E to W		1.31 1 22.15
SMM camera in Petrivske ("DPR"-	SW	(assessed as inside disengagement area)		1 November, 23:15
controlled, 41km S		Recorded 1 tracer from W to E	N/K	
of Donetsk)	200-500m S	(assessed as inside disengagement		1 November, 23:18
or Bonetsky	200 3001113	area)		1 1.0 velilee1, 23.10
	200.500	Recorded 1 tracer from N to S	1	
	200-500m	(assessed as inside disengagement		2 November, 01:02
	SW	area)		
		Recorded 2 tracers from W to E		
	200-500m S	(assessed as inside disengagement		2 November, 02:49
		area)		
	0.5-1km SW	Recorded 3 tracers from NW to SE		2.N. 1 02.51
		(assessed as inside disengagement area)		2 November, 02:51
		Recorded 1 projectile from NW to SE		
		Recorded 3 projectiles from ESE to		3 November, 18:32
		WNW		3 110 veineer, 10.32
	0.5-2km S	Recorded 4 undetermined explosions		
		Recorded 5 projectiles from ESE to		3 November, 18:33
		WNW		
		Recorded 2 projectiles from ESE to		
		WNW		3 November, 18:34
		Recorded 1 projectile from NW to SE	N/K	
		Recorded 1 undetermined explosion		3 November, 18:36
		Recorded 1 undetermined explosion		3 November, 18:39
		Recorded 1 undetermined explosion Recorded 17 tracers from ESE to		3 November, 18:40
SMM camera at		WNW		3 November, 18.40
Donetsk Filtration		Recorded 9 projectiles from E to W		
Station (15km N of		Recorded 4 undetermined explosions		3 November, 18:41
Donetsk)		Recorded 15 projectiles from SE to		
		NW		3 November, 18:43
		Recorded 1 projectile from E to W		
		Recorded 4 undetermined explosions		3 November, 18:44
		Recorded 2 undetermined explosions		
		Recorded 5 projectiles from E to W		3 November, 18:50
		Recorded 1 projectile from N to S		
		Recorded 4 undetermined explosions Recorded 3 projectiles from SE to		3 November, 18:53
		NW		5 INOVERIDER, 18:33
		Recorded 2 undetermined explosions		3 November, 18:55
				,
		Recorded 1 undetermined explosion		3 November, 18:57

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<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.

		(trajectory N/K)		
		Recorded 4 projectiles from SE to		2 N 10:04
		NW		3 November , 19:04
		Recorded 3 projectiles from E to W		3 November, 19:11
		Recorded 5 projectiles from SE to NW		3 November, 19:12
		Recorded 2 projectiles from E to W		
		Recorded 1 undetermined explosion		3 November, 19:13
		Recorded 2 projectile from SE to NW		3 November, 19:23
		Recorded 1 projectile from E to W		3 November, 19:28
		Recorded 7 projectiles from ESE to WNW		3 November, 19:31
		Recorded 2 undetermined explosions		3 November, 19:39
		Recorded 1 projectile from W to E		3 November, 20:14
		Recorded 2 projectiles from W to E		3 November, 20:15
		Recorded 1 projectile from W to E		3 November, 20:56
		Recorded 1 projectile from W to E		3 November, 20:57
		Recorded 2 projectiles from E to W		3 November, 21:16
		Recorded 6 projectiles from W to E  Recorded 4 projectiles from W to E		3 November, 21:30 3 November, 21:31
		Recorded 4 projectiles from E to W	-	3 November, 21:32
		Recorded 1 projectile from E to W		3 November, 21:36
		Recorded 3 projectiles from E to W	1	3 November, 21:38
		Recorded 4 projectiles from E to W		3 November, 21:39
		Recorded 3 projectiles from E to W		3 November, 21:40
		Recorded 1 projectile from E to W		3 November, 21:45
		Recorded 1 projectile from NNW to SSE		3 November, 23:36
		Recorded 2 projectiles from W to E		4 November, 04:43
		Recorded 2 undetermined explosions		4 November, 19:01
		Recorded 5 projectiles from E to W Recorded 1 undetermined explosion		
		Recorded 1 projectile from E to W		4 November, 19:02
		Recorded 3 undetermined explosions		4 Nassandari 10.04
		Recorded 7 projectiles from E to W		4 November, 19:04
		Recorded 1 undetermined explosion		4 November, 19:05
		Recorded 2 projectiles from E to W		4 November, 19:06
		Recorded 1 illumination flare		
		(trajectory N/K)  Recorded 9 projectiles from E to W		4 November, 19:07
	0.5-1km S	Recorded 2 projectiles from W to E		
		Recorded 2 projectiles from E to W		4 November, 19:11
		Recorded 1 undetermined explosion		·
		Recorded 1 projectile from E to W		4 November, 19:12
		Recorded 7 projectiles from E to W		4 November, 19:13
		Recorded 5 undetermined explosions		4 November, 19:17
		Recorded 8 projectiles from E to W		,
		Recorded 1 illumination flare (trajectory N/K)		
		Recorded 2 undetermined explosions	1	4 November, 19:18
		Recorded 5 projectiles from E to W	1	
		Recorded 1 undetermined explosion	1	4 November, 19:57
		Recorded 8 projectiles from E to W		·
	0.5-2km S	Recorded 2 projectiles from W to E	Small arms and light	4 November, 20:01
		Recorded 5 projectiles from W to E	weapons	4 November, 21:35
		Recorded 3 projectiles from W to E		4 November, 21:39
		Recorded 1 undetermined explosions	N/V	4 November, 21:42
		Recorded 1 undetermined explosion Recorded 2 undetermined explosions	N/K	4 November, 21:50 4 November, 21:51
		Recorded 2 undetermined explosions  Recorded 7 projectiles (trajectory		
		N/K)	Small arms and light	4 November, 21:53
		Recorded 5 projectiles (trajectory N/K)	weapons	4 November, 21:54
	N/K S	Recorded 1-3 undetermined	N/K	5 November, 18:38
			<u> </u>	

		avalogions		
		explosions Recorded 1-3 undetermined	-	
		explosions		5 November, 18:40
		Recorded 1-3 undetermined	-	
		explosions		5 Name 19.42
		F		5 November, 18:43
		Recorded 1 undetermined explosion	4	
		Recorded 4 projectiles from NW to		5 November, 19:25
		SE	NI/IZ	2.1 10.55
		Heard 4 undetermined explosions	N/K	3 November, 18:55
		Heard 3 bursts (5-10 shots each)	HMG	3 November, 18:56
	5-6km SE	Heard 10 shots	Small arms	3 November, 18:57
		Heard 3 undetermined explosion		,
		Heard 1 undetermined explosion	N/K	3 November, 19:12
	5-6km SW	Heard 2 undetermined explosions	- 1,712	3 November, 19:32
		Heard 1 undetermined explosion		3 November, 19:37
		Heard 4 bursts	HMG	·
	5-6km SE	Heard 7 undetermined explosions	N/K	3 November, 19:39
	J-OKIII SL	Heard 1 burst (3-5 shots)	Small arms	3 November, 19:40
		Heard 6 bursts (5-10 shots each)	HMG	3 November, 19:41
		Heard 4 undetermined explosions		3 November, 19.41
		Heard 1 undetermined explosion	N/K	3 November, 19:42
	2 51cm C	Heard 10 undetermined explosions		3 November, 19:46
	3-5km S	Heard 2 bursts (5-10 shots each)	HMG	3 November, 19:47
		Heard 1 undetermined explosion	27/77	3 November, 19:49
	5-6km SW	Heard 1 undetermined explosion	N/K	3 November, 19:50
		Heard 2 bursts (5-10 shots each)		3 November, 19:52
	3-5km S	Heard 3 bursts (5-10 shots each)	HMG	3 November, 19:54
	5-6km SE	Heard 1 undetermined explosion		3 November, 19:56
		Heard 3 undetermined explosions		3 November, 19:57
		Heard 1 undetermined explosion	-	3 November, 19:59
		Heard 2 undetermined explosions	=	3 November, 20:00
	5-6km SW	Heard 1 undetermined explosion	N/K	3 November, 20:03
		Heard 2 undetermined explosions		3 November, 20:06
Svitlodarsk		Heard 2 undetermined explosions		3 November, 20:07
(government-		Heard 2 undetermined explosions		3 November, 20:08
controlled, 57km NE		Heard 3 undetermined explosions		3 November, 20:16
of Donetsk)		Heard 1 undetermined explosion		3 November, 20:27
		<u> </u>		3 November, 20:27
		Heard 2 undetermined explosions		3 November, 20:40
	5-6km SE	Heard 1 undetermined explosion		, , , , , , , , , , , , , , , , , , ,
		Heard 2 undetermined explosions	4	3 November, 20:45
	5-6km SW	Heard 1 undetermined explosion		3 November, 20:54
	5-6km SE	Heard 2 bursts (5-10 shots each)	HMG	3 November, 21:19
		Heard 5 bursts (5-10 shots each)		3 November, 21:21
		Heard 3 bursts (5-10 shots each)		3 November, 21:22
		Heard 1 undetermined explosion	N/K	3 November, 21:23
		Heard 1 undetermined explosion		3 November, 21:25
		Heard 9 bursts (5-10 shots each)	HMG	3 November, 21:26
		Heard 5 bursts (5-10 shots each)		3 November, 21:27
		Heard 4 shots	Small arms	3 November, 21:30
		Heard 2 undetermined explosions	N/K	3 November, 21:31
		Heard 2 shots	Small arms	3 November, 21:34
		Heard 3 bursts (5-10 shots each)		3 November, 21:37
		Heard 5 bursts (5-10 shots each)	HMG	3 November, 21:55
		Heard 3 bursts (5-10 shots each)		3 November, 21:56
	5-6km SW	Heard 3 undetermined explosions	_	3 November, 22:01
		Heard 2 undetermined explosions	N/K	4 November, 13:49
		Heard 1 undetermined explosion		4 November, 13:51
		Heard 2 undetermined explosions		4 November, 13:53
		Heard 1 undetermined explosion		4 November, 13:55
		Heard 2 undetermined explosions		4 November, 13:56
		Heard 1 undetermined explosion	1	4 November, 14:55
Railway station in	2-3km W	Heard 4 bursts		
Yasynuvata ("DPR"-	1-3km W	Heard 20 bursts	Small arms	4 November, 09:02-09:30
controlled, 16km NE	4-5km W	Heard 3 shots	1	
	, ,		1	

of Donetsk)	1	Heard 14 shots		
or Dolletsk)		Heard 41 bursts	1	4 November, 09:35-09:58
				4 November, 09:33-09:38
	2-3km W	Heard 10 undetermined explosions	N/K	
		Heard 46 undetermined explosions		_
		Heard 19 bursts	G 11	1 10 22 10 20
	2.51	Heard 11 shots	Small arms	4 November, 10:22-10:28
	3-5km SSE	Heard 1 burst		
		Heard 34 shots	AGL	
	2-3km W	Heard 5 bursts	Small arms	
		Heard 3 shots		<u> </u>
	3-5km W	Heard 7 undetermined explosions	N/K	
	3-3KIII **	Heard 2 bursts	Small arms	4 November, 10:31-10:59
		Heard 26 undetermined explosions	N/K	
	2-3km W	Heard 15 bursts	Small arms	
	2-3KIII W	Heard 20 bursts	HMG	
		Heard 27 shots	Small arms	
	2-4km W	Heard 1 undetermined explosion	N/K	4 November, 12:30-12:47
	1-3km W	Heard 4 shots	Small arms	1
		Heard 21 undetermined explosions	N/K	
		Heard 46 bursts		1
		Heard 6 shots	Small arms	4 November, 13:26-13:29
	2-3km W	Heard 8 shots	AGL	1
	2 Skiii V	Heard 39 bursts	HMG	
		Heard 10 bursts	Small arms	4 November, 13:50-14:16
		Heard 11 undetermined explosions	N/K	1 4 140 vember, 13.30-14.10
Staromykhailivka		Heard 17 bursts	HMG	4 N
("DPR"-controlled,	2-3km W	Heard 4 bursts	Small arms	4 November, 09:17-09:22
15km W of Donetsk)		Heard 26 bursts	Sman arms	4 November, 10:00-10:05
	N/K NE	Heard 2 shots	N/K	4 November, 09:14
	IN/K INE	1		4 November, 09:14
WSW edge of	3km NE	Heard 13 explosions (outgoing)	Mortar (82mm) N/K	4 November, 09:20-09:45
Lebedynske		Heard 2 undetermined explosions	The state of the s	<u> </u>
(government-	N/K NE	Heard 9 shots	IFV (BMP-2) cannon	433
controlled, 16km NE		TT 111	(30mm)	4 November, 14:31
of Mariupol)		Heard 1 burst	Small arms	
	N/II F	Heard 4 undetermined explosions	N/K	4 November, 14:50-15:00
	N/K E	Heard uncountable overlapping bursts	HMG	<u> </u>
	2-3km NW	Heard 1 undetermined explosion	N/K	
		Heard 10 bursts	Small arms	
Trudivski area of	1-3km NW	Heard 4 shots		4 November, 09:38-09:54
Petrovskyi district		Heard 1 undetermined explosion	N/K	
("DPR"-controlled,		Heard 3 shots		
15km SW of		Heard 8 bursts	Small arms	
Donetsk city centre)	2-3km NW	Heard 3 shots		4 November, 10:18-11:02
		Heard 93 bursts	HMG	4 140 vember, 10.16-11.02
		Heard 6 shots	TIIVIO	
	N/K NNW	Heard 1 undetermined explosion	N/K	4 November, 10:30
	N/K W	Heard 1 shot		4 November, 11:15
	4101 E	Heard 40 shots (assessed as a live-fire		4 N
	<10km E	exercise)	Small arms	4 November, 11:40-11:50
2km SSE of	N/K N	Heard 1 shot		4 November, 11:57
Sakhanka ("DPR"-	N/K W	Heard 2 shots	1	4 November, 12:20
controlled, 24km NE	N/K NW	Heard 2 undetermined explosions		4 November, 12:22
of Mariupol)		Heard 2 undetermined explosions	1	4 November, 12:50
		Heard 9 undetermined explosions	N/K	4 November, 13:30-13:37
	N/K NNW	Heard 6 undetermined explosions	1	
		Heard 2 bursts	Small arms	4 November, 13:50-13:55
			Sman arms	137 1 20 27 20
SW edge of		Heard 10 undetermined explosions		4 November, 10:45-10:50
Avdiivka (government-	3-5km SE	Heard 15 undetermined explosions	N/K	4 November, 11:10-11:24
controlled, 17km N		Heard 9 undetermined explosions	1	4 November, 11:45-11:55
	i .	1 11card / undetermined explosions	1	- 110 voimoci, 11.43-11.33
of Donetsk)	2-4km SE	Heard 7 bursts	Small arms	4 November, 14:00

SMM camera site in Shyrokyne (20km E of Mariupol)	N/K NW	Heard 2 explosions (outgoing)	Mortar (type N/K)	4 November, 10:49
or manapor,	N/K SSE	Heard 10 undetermined explosions Heard and saw 2 explosions (impacts)	N/K	4 November, 13:13-13:24
		Heard 2 shots	Small arms	
		Heard 5 undetermined explosions	N/K	
2km SW of	N/K N	Heard 2 bursts	Small arms	-
Pyshchevyk			N/K	4 November, 13:28-13:46
(government-	N/K SSE	Heard 5 undetermined explosions		╡
controlled, 25km NE		Heard 23 shots	Small arms	
of Mariupol)	N/K N	Heard 1 undetermined explosion		
• /		Heard 5 undetermined explosions	N/K	
	N/K SSE	Heard and saw 1 explosion (impact)		4 November, 13:51-14:15
	TVICOSE	Heard 2 bursts	Small arms	
		Heard 2 shots	Silian arms	
Kadiivka (formerly Stakhanov, "LPR"- controlled, 50km W of Luhansk)	10-12km W	Heard 10 undetermined explosions	N/K	3 November, 19:13-19:17
Zhovte ("LPR"-	2km W and	Heard 6 shots	N/K	
controlled, 17km	3km W and WNW	Hourd 20 shots	Cmall aum -	4 November, 09:45-09:55
NW of Luhansk)	VV IN VV	Heard 20 shots	Small arms	
<u> </u>		Recorded 2 undetermined explosions		4 November, 17:27
		Recorded 1 undetermined explosion		4 November, 17:29
	4.61 00	Recorded 3 undetermined explosions		4 November, 17:31
	4-6km SE	Recorded 1 undetermined explosion		4 November, 17:37
		Recorded 3 undetermined explosions		4 November, 17:45
		Recorded 1 projectile from W to E		4 November, 18:22
		Recorded 1 projectile from ENE to		· ·
	N/K ESE	WSW		5 November, 16:07
		Recorded 1 projectile from ENE to WSW		5 November, 16:08
		Recorded 1 projectile from ENE to WSW		5 November, 16:09
SMM camera in Avdiivka		Recorded 5-10 projectiles from SSW to NNE		5 November, 18:25
(government- controlled, 17km N		Recorded 4 projectiles from SSW to NNE	N/K	5 November, 18:26
of Donetsk)		Recorded 2 projectiles from SSW to NNE		5 November, 18:27
		Recorded 3 projectiles from SSW to NNE		5 November, 18:29
		Recorded 8 projectiles from SSW to NNE		5 November, 18:30
		Recorded 1-3 undetermined explosions		5 November, 18:38
		Recorded 1-3 undetermined explosions		5 November, 18:40
		Recorded 1 undetermined explosion	1	5 November, 18:44
		Recorded 5 undetermined explosions	†	5 November, 18:45
			1	
		Recorded 9 undetermined explosions		5 November, 19:14
	7.01- 037	Heard 2 undetermined explosions	-	4 November, 19:45
	7-8km SW	Heard 2 undetermined explosions	4	4 November, 20:15
		Heard 2 undetermined explosions	4	4 November, 21:08
	8-10km SW 7-8km SW	Heard 1 undetermined explosion	N/K	4 November, 21:13
		Heard 1 undetermined explosion		4 November, 21:29
Svitlodarsk		Heard 2 undetermined explosions		4 November, 21:55
(government-		Heard 2 undetermined explosions		4 November, 22:14
controlled, 57km NE		Heard 1 undetermined explosion		4 November, 22:53
of Donetsk)		Heard 3 undetermined explosions		4 November, 23:24
of Bolletsky		Heard 2 undetermined explosions		4 November, 23:27
	8-10km SW	TT 12 14 1 1 1		4 November, 23:34
	8-10km SW	Heard 3 undetermined explosions		4 NOVCINOCI, 23.34
	8-10km SW		-	4 November, 23:36
	8-10km SW	Heard 2 undetermined explosions Heard 2 undetermined explosions Heard 2 undetermined explosions		

	T	1	1	
		Heard 25 bursts	HMG	
		Heard 5 undetermined explosions	N/K	5 November, 18:00
		Heard 12 bursts	HMG	·
		Heard 1 undetermined explosion	N/K	5 November, 18:14
		Heard 5 bursts	HMG	5 November, 18:14-18:18
		Heard 17 bursts		5 November, 18:20-18:24
		Heard 2 bursts	Small arms	5 November, 18:31
		Heard 2 bursts	HMG	5 November, 18:48
	4-6km SE	Heard 5 undetermined explosions	N/K	5 November, 18:52
		Heard 14 bursts	HMG	5 November, 19:00
		Heard 5 undetermined explosions	N/K	5 November, 19:01
		Heard 5 bursts	Small arms	5 November, 19:06-19:15
		Heard 4 undetermined explosions	N/K	5 November, 19:07
		Heard 3 bursts	HMG	5 November, 19:15
	2-3km NNW	Heard 10 bursts	Small arms	5 N 1 00 50 00 50
	2-3km W	Heard 1 undetermined explosion	N/K	5 November, 08:50-08:56
	2-3km NNW	Heard uncountable overlapping bursts	G 11	5 November, 09:07
	3-4km NNW	Heard 2 shots	Small arms	537 1 00 22 00 51
	3-4km WSW	Heard 2 undetermined explosions	N/K	5 November, 09:32-09:51
		Heard 3 bursts		5 November, 10:15
	2-3km WSW	Heard 3 bursts	Small arms	5 November, 10:58-11:00
	3-4km NW	Heard 2 undetermined explosions	N/K	
	2-3km W	Heard 6 bursts	Small arms	5 November, 11:21-11:31
	2-3KIII VV	Heard 1 undetermined explosion	N/K	
Railway station in	3-4km NW	Heard 6 shots	Small arms	
Yasynuvata ("DPR"-		Heard 1 undetermined explosion	N/K	5 November, 11:33-11:54
controlled, 16km NE	3-4km W		IN/ K	
of Donetsk)		Heard 17 bursts	G 11	
	2-3km W	Heard 13 shots	Small arms	5 November, 12:03-12:10
	2 41 2777	Heard 3 bursts		·
	3-4km NW	Heard 2 undetermined explosions	N/K	5 November, 12:42
	2-4km WSW	Heard 5 undetermined explosions		5 November, 13:11
	3-4km WNW	Heard 3 bursts	Small arms	
		Heard 1 shot		5 November, 13:44-13:57
		Heard 1 undetermined explosion	N/K	
	3-4km W	Heard 21 undetermined explosions		
		Heard 4 bursts	Small arms	5 November, 14:01-14:18
	3-4km NW	Heard 1 undetermined explosion	N/K	
3.5km SSW of Lomakyne	NUZNE	W 12 1 1 1 1 1	NUZ	5.14 1 00 40 00 56
(government- controlled, 15km NE of Mariupol)	N/K NE	Heard 2 undetermined explosions	N/K	5 November, 09:48-09:56
1km NNW of		Heard 4 bursts		5 November, 09:50
Pyshchevyk	N/K NNE	Heard 4 shots	Small arms	5 November, 10:05
(government-		Heard 4 Shots		3 November, 10.03
	1			
controlled, 25km NE	N/K SE	Heard 1 undetermined explosion	N/K	5 November, 10:20
controlled, 25km NE of Mariupol)	N/K SE	Heard 1 undetermined explosion	N/K	5 November, 10:20
controlled, 25km NE of Mariupol) 2.3km SSE of	N/K SE	Heard 1 undetermined explosion	N/K	5 November, 10:20
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne		-		
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government-	N/K SE	Heard 1 undetermined explosion  Heard 2 undetermined explosions	N/K	5 November, 10:20 5 November, 12:50
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne (government- controlled, 15km NE		-		
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol)		-		
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol) 2km W of Roza	N/K E	Heard 2 undetermined explosions	N/K	5 November, 12:50
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol) 2km W of Roza ("DPR"-controlled,		-		
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne (government-controlled, 15km NE of Mariupol) 2km W of Roza ("DPR"-controlled, 36km NE of	N/K E	Heard 2 undetermined explosions	N/K	5 November, 12:50
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne (government-controlled, 15km NE of Mariupol) 2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)	N/K E	Heard 2 undetermined explosions  Heard 1 undetermined explosion	N/K	5 November, 12:50
controlled, 25km NE of Mariupol) 2.3km SSE of Lomakyne (government-controlled, 15km NE of Mariupol) 2km W of Roza ("DPR"-controlled, 36km NE of Mariupol) 1.9km NW of	N/K E	Heard 2 undetermined explosions  Heard 1 undetermined explosion  Heard 3 bursts	N/K	5 November, 12:50
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol)  2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)  1.9km NW of Debaltseve ("DPR"-	N/K E N/K NNW	Heard 2 undetermined explosions  Heard 1 undetermined explosion	N/K N/K HMG	5 November, 12:50
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government-controlled, 15km NE of Mariupol)  2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)  1.9km NW of Debaltseve ("DPR"-controlled, 58km NE	N/K E  N/K NNW  6-8km NW	Heard 2 undetermined explosions  Heard 1 undetermined explosion  Heard 3 bursts  Heard 3 undetermined explosions	N/K	5 November, 12:50  5 November, 12:50
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol)  2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)  1.9km NW of Debaltseve ("DPR"- controlled, 58km NE of Donetsk)	N/K E N/K NNW	Heard 2 undetermined explosions  Heard 1 undetermined explosion  Heard 3 bursts	N/K N/K HMG	5 November, 12:50  5 November, 12:50
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol)  2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)  1.9km NW of Debaltseve ("DPR"- controlled, 58km NE of Donetsk)  800m S of	N/K E  N/K NNW  6-8km NW	Heard 2 undetermined explosions  Heard 1 undetermined explosion  Heard 3 bursts  Heard 3 undetermined explosions	N/K N/K HMG	5 November, 12:50  5 November, 12:50
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol)  2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)  1.9km NW of Debaltseve ("DPR"- controlled, 58km NE of Donetsk)  800m S of Novohryhorivka	N/K E  N/K NNW  6-8km NW  8-10km NW	Heard 2 undetermined explosions  Heard 1 undetermined explosion  Heard 3 bursts  Heard 3 undetermined explosions  Heard 1 undetermined explosions	N/K N/K HMG N/K	5 November, 12:50  5 November, 12:50  5 November, 14:15-14:26
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol)  2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)  1.9km NW of Debaltseve ("DPR"- controlled, 58km NE of Donetsk)  800m S of Novohryhorivka ("DPR"-controlled,	N/K E  N/K NNW  6-8km NW  8-10km NW	Heard 2 undetermined explosions  Heard 1 undetermined explosion  Heard 3 bursts  Heard 3 undetermined explosions	N/K N/K HMG	5 November, 12:50  5 November, 12:50
controlled, 25km NE of Mariupol)  2.3km SSE of Lomakyne (government- controlled, 15km NE of Mariupol)  2km W of Roza ("DPR"-controlled, 36km NE of Mariupol)  1.9km NW of Debaltseve ("DPR"- controlled, 58km NE of Donetsk)  800m S of Novohryhorivka	N/K E  N/K NNW  6-8km NW  8-10km NW	Heard 2 undetermined explosions  Heard 1 undetermined explosion  Heard 3 bursts  Heard 3 undetermined explosions  Heard 1 undetermined explosions	N/K N/K HMG N/K	5 November, 12:50  5 November, 12:50  5 November, 14:15-14:26

		II		5 Name 17 27
	3-4km SW	Heard 1 undetermined explosion	37/77	5 November, 17:37
	5 51 GYY	Heard 2 undetermined explosions	N/K	5 November, 17:45
	5-7km SW	Heard 1 undetermined explosion	177.60	5 November, 18:08
	3-4km SSW	Heard 10 bursts	HMG	5 November, 18:10
	3-4km SW	Heard 3 explosions (outgoing)	Mortar (82mm)	5 November, 18:11
	6-7km SW	Heard 3 undetermined explosions	N/K	5 November, 18:18
	0 7 Km 5 11	Heard 5 undetermined explosions		5 November, 18:34
	6-7km SSW	Heard about 40 explosions (outgoing)	MLRS (BM-21 Grad,	5 November, 18:38
		(assessed as a salvo)	122mm)	
Horlivka ("DPR"-	6-7km SW	Heard 3 undetermined explosions		5 November, 18:44
controlled, 39km NE	3-4km SW	Heard 5 undetermined explosions		5 November, 18:45
of Donetsk)		Heard 1 undetermined explosion	N/K	5 November, 18:51
	6-7km SW	Heard 2 undetermined explosions		5 November, 18:56
	6-7km SSW	Heard 1 undetermined explosion		5 November, 19:01
	3-4km SW	Heard 3 bursts	HMG	5 November, 19:08
	J-4KIII S W	Heard 1 undetermined explosion		5 November, 19:09
		Heard 2 undetermined explosions	N/K	5 November, 19:19
	6-7km SW	Heard 2 undetermined explosions		5 November, 19:20
	3-4km SW	Heard 1 undetermined explosion		5 November, 19:22
	5-4KIII S W	Heard 2 explosions (outgoing)	Mortar (82mm)	5 November, 19:28
		Heard 5 shots	Small arms	5 November, 19:28
Debaltseve ("DPR"-			N/K	
controlled, 58km NE	7-10km NW	Heard 8 undetermined explosions		5 November, 19:20
of Donetsk)	/-IUKIN IN W			
SMM camera in				
Stanytsia Luhanska	2.3-2.5km	Recorded 3 explosions (outgoing) (assessed as outside disengagement area)  Mortar (type 3)	Mortar (type N/K)	
(government-	SSE SSE			4 November, 21:15
controlled, 16km NE				
of Luhansk)				
NE edge of Kruta		Heard 1 undetermined explosion	N/K	
Hora ("LPR"-	7km W			5 November, 09:12
controlled, 16km	/ KIII VV	Heard 6 bursts	HMG	5 110 veimoei, 07.12
NW of Luhansk)				
S edge of Popasna				
(government-	8-10km S	Heard 2 undetermined explosions	N/K	5 November, 09:54
controlled, 69km W		2 didetermined expressions	1 " 1 1	3 1(0) (1110) (1) (1)
of Luhansk)				
2km SE of Kalynove	5km SW	Heard 4 shots	Small arms	5 November, 10:15
("LPR"-controlled,				2 110 (011001, 10.10
60km W of Luhansk)	10-12km SW	Heard 34 undetermined explosions	N/K	5 November, 10:22-10:32
( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	5km SW	Heard 6 shots	Small arms	·
4km SW of Almazna	10-12km W	Heard 1 undetermined explosion		5 November, 11:24
("LPR"-controlled,	10-12KIII W	Tiona i anacommica expression	N/K	
55km W of Luhansk)	5km W	Heard 2 undetermined explosions	1 V / IX	5 November, 12:44-13:05
SSKIN W OI LUNANSK)	JKIII 11	110ard 2 diluctoffillified explosions		

## 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 base from which SMM staff has temporarily relocated since 27 September 2016 based on recommendations of security experts from participating States.)