

**Table of ceasefire violations as of 24 October 2019<sup>9</sup>**

SMM position	Event location	Means	No.	Observation	Description	Weapon	Date, time
SMM camera in Berezove (government-controlled, 31km SW of Donetsk)	1-2km SE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 19:59
	1-2km SE	Recorded	2	Projectile	WSW to ENE	N/K	23-Oct, 20:01
	1-2km ESE	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 20:01
	1-2km SE	Recorded	4	Projectile	WSW to ENE	N/K	23-Oct, 20:02
	1-2km SE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 20:25
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 21:59
	1-2km SE	Recorded	3	Projectile	W to E	N/K	23-Oct, 22:00
	3-5km ESE	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 22:00
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:01
	1-2km SE	Recorded	4	Projectile	W to E	N/K	23-Oct, 22:01
	3-5km ESE	Recorded	4	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:01
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:02
	1-2km SE	Recorded	2	Projectile	W to E	N/K	23-Oct, 22:03
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:03
	3-5km ESE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:03
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:04
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:04
	3-5km ESE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:04
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:05
	3-5km ESE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:05
	1-2km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:06
	3-5km ESE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:06
	3-5km ESE	Recorded	1	Explosion		N/K	23-Oct, 22:06
	2-4km SE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 22:08
	2-4km SSE	Recorded	2	Projectile	WSW to ENE	N/K	23-Oct, 22:09
	2-4km SSE	Recorded	2	Projectile	W to E	N/K	23-Oct, 22:11
	2-4km SSE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:12
	2-4km SSE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:12
	3-5km SE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:12
	2-4km SE	Recorded	1	Muzzle flash		N/K	23-Oct, 22:13
	2-4km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:13
	3-5km SE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:13
	2-4km SE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:14
3-5km SE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:14	
2-4km SSE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 22:14	

<sup>9</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	Projectile	WSW to ENE	N/K	23-Oct, 22:15
	2-4km SE	Recorded	1	Muzzle flash		N/K	23-Oct, 22:16
	2-4km SE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 22:16
	2-4km SE	Recorded	5	Projectile	SW to NE	N/K	23-Oct, 22:18
	2-4km SSE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 22:20
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 22:21
	2-4km SSE	Recorded	4	Projectile	WSW to ENE	N/K	23-Oct, 22:24
	2-4km SE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 22:24
	2-4km SE	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 22:24
	2-4km SSE	Recorded	3	Projectile	WSW to ENE	N/K	23-Oct, 22:25
	2-4km SSE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 22:28
	2-4km SSE	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 22:29
SMM camera at Donetsk Filtration Station (15km N of Donetsk)	100-500m S	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:13
	100-500m S	Recorded	3	Projectile	WNW to ESE	N/K	23-Oct, 20:14
	100-500m S	Recorded	3	Projectile	WNW to ESE	N/K	23-Oct, 20:25
	0.5-1km SSW	Recorded	8	Projectile	ESE to WNW	N/K	23-Oct, 20:30
	0.5-1km SSW	Recorded	1	Projectile	ESE to WNW	N/K	23-Oct, 20:31
	0.5-1km SSW	Recorded	5	Projectile	ESE to WNW	N/K	23-Oct, 20:32
	0.5-1km S	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:38
	0.5-1km SSE	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 20:38
	100-500m S	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:44
	0.5-1km S	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 20:44
	100-500m S	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:45
	100-500m S	Recorded	2	Projectile	NW to SE	N/K	23-Oct, 20:56
	100-500m S	Recorded	1	Projectile	NW to SE	N/K	23-Oct, 20:57
	400-600m SSE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 20:57
	100-500m S	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 21:24
	0.5-1km S	Recorded	1	Muzzle flash		N/K	23-Oct, 21:24
	0.5-1km S	Recorded	1	Projectile	N to S	N/K	23-Oct, 21:24
	0.5-1km SSW	Recorded	3	Muzzle flash		N/K	23-Oct, 21:29
	100-500m S	Recorded	1	Projectile	NW to SE	N/K	23-Oct, 21:30
	0.5-1km S	Recorded	1	Projectile	NW to SE	N/K	23-Oct, 21:30
	300-600m SSW	Recorded	1	Muzzle flash		N/K	23-Oct, 21:30
	100-500m S	Recorded	1	Projectile	NNW to SSE	N/K	23-Oct, 21:30
	300-600m SSW	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 21:34
	300-600m SSW	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 21:34
	300-600m SSW	Recorded	3	Muzzle flash		N/K	23-Oct, 21:37
	300-600m SSW	Recorded	2	Projectile	NW to SE	N/K	23-Oct, 21:38
	300-600m SSW	Recorded	2	Explosion	Undetermined	N/K	23-Oct, 21:39
	300-600m SSW	Recorded	9	Projectile	NW to SE	N/K	23-Oct, 21:39
	300-600m SSW	Recorded	2	Explosion	Undetermined	N/K	23-Oct, 21:40
	300-600m SSW	Recorded	9	Projectile	NW to SE	N/K	23-Oct, 21:40
	300-600m SSW	Recorded	1	Projectile	W to E	N/K	23-Oct, 21:41
	200-500m SSE	Recorded	2	Explosion	Undetermined	N/K	23-Oct, 21:46
	300-600m SSW	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 21:46
	200-500m SSE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:27
	300-600m SSW	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 22:27
300-600m SSW	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:27	
300-600m SSW	Recorded	2	Explosion	Undetermined	N/K	23-Oct, 22:31	
300-600m SSW	Recorded	1	Projectile	NW to SE	N/K	23-Oct, 22:31	
100-300m S	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 22:32	
300-600m SSW	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 22:32	
SMM camera 1.5km NE of Hnutove (government-controlled, 90km S of Donetsk)	3-5km ESE	Recorded	2	Explosion	Airburst	N/K	23-Oct, 20:20
	2-4km ESE	Recorded	1	Projectile	WSW to ENE	N/K	24-Oct, 02:21
	2-4km ESE	Recorded	1	Explosion	Airburst, subsequent to previous event	N/K	24-Oct, 02:21

SMM camera in Krasnohorivka (government-controlled, 21km W of Donetsk)	3-5km SE	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 21:10
	3-5km SE	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 21:15
	3-5km E	Recorded	1	Projectile	N to S	N/K	23-Oct, 21:24
SMM camera E of Lomakyne (government-controlled, 90km S of Donetsk)	2-4km ENE	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 18:58
SMM camera at entry-exit checkpoint in Maiorsk (government-controlled, 45km NE of Donetsk)	3-5km ENE	Recorded	1	Projectile	N to S	N/K	23-Oct, 21:33
	3-5km ENE	Recorded	1	Muzzle flash		N/K	23-Oct, 22:33
	3-5km ENE	Recorded	7	Projectile	N to S	N/K	23-Oct, 22:33
	3-5km ENE	Recorded	2	Projectile	N to S	N/K	23-Oct, 22:54
	2-4km ENE	Recorded	6	Projectile	N to S	N/K	24-Oct, 01:21
	2-4km ENE	Recorded	3	Projectile	N to S	N/K	24-Oct, 01:22
SMM camera at entry-exit checkpoint in Marinka (government-controlled, 23km SW of Donetsk)	2-4km NNE	Recorded	1	Projectile	W to E	N/K	24-Oct, 01:51
	2-4km NNE	Recorded	2	Projectile	WSW to ENE	N/K	24-Oct, 01:51
SMM camera at entry-exit checkpoint in Pyshevyk (government-controlled, 84km S of Donetsk)	2-4km SSE	Recorded	8	Projectile	W to E	N/K	23-Oct, 18:31
	2-4km SSE	Recorded	10	Projectile	W to E	N/K	23-Oct, 18:53
	2-4km S	Recorded	8	Projectile	W to E	N/K	23-Oct, 19:20
	2-4km S	Recorded	1	Projectile	W to E	N/K	23-Oct, 19:25
	2-4km S	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 19:25
	2-4km S	Recorded	8	Projectile	W to E	N/K	23-Oct, 19:27
	2-4km S	Recorded	1	Projectile	W to E	N/K	23-Oct, 19:28
	2-4km S	Recorded	5	Projectile	W to E	N/K	23-Oct, 19:29
	2-4km S	Recorded	1	Projectile	W to E	N/K	23-Oct, 20:02
	2-4km S	Recorded	1	Projectile	W to E	N/K	23-Oct, 20:04
	2-4km S	Recorded	11	Projectile	W to E	N/K	23-Oct, 21:28
	2-4km SSE	Recorded	2	Projectile	W to E	N/K	23-Oct, 22:20
	2-4km SSE	Recorded	1	Projectile	W to E	N/K	23-Oct, 22:20
	2-4km SSE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	23-Oct, 22:20
	2-4km SSE	Recorded	2	Projectile	W to E	N/K	24-Oct, 01:38
	2-4km SSE	Recorded	1	Projectile	W to E	N/K	24-Oct, 01:38
	2-4km SSE	Recorded	1	Explosion	Airburst, subsequent to previous event	N/K	24-Oct, 01:38
	2-4km SSE	Recorded	2	Projectile	W to E	N/K	24-Oct, 01:38
	2-4km SSE	Recorded	2	Projectile	W to E	N/K	24-Oct, 01:39
	2-4km S	Recorded	1	Projectile	E to W	N/K	24-Oct, 03:03
2-4km SSE	Recorded	2	Projectile	W to E	N/K	24-Oct, 03:06	
SMM camera 1km SW of Shyrokyne (government-controlled, 100km S of Donetsk)	2-4km N	Recorded	3	Projectile	WNW to ESE	N/K	23-Oct, 20:00
	2-4km NE	Recorded	3	Projectile	ESE to WNW	N/K	23-Oct, 20:00
	2-4km N	Recorded	5	Projectile	WNW to ESE	N/K	23-Oct, 20:13
	2-4km NE	Recorded	2	Projectile	WNW to ESE	N/K	23-Oct, 20:13
	2-4km N	Recorded	4	Projectile	WNW to ESE	N/K	23-Oct, 20:26
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:29
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:30
	2-4km N	Recorded	1	Muzzle flash		N/K	23-Oct, 20:30
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:31
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	23-Oct, 20:32
2-4km N	Recorded	6	Projectile	WNW to ESE	N/K	23-Oct, 20:33	

	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	23-Oct, 20:34
	2-4km N	Recorded	1	Explosion	Undetermined	N/K	23-Oct, 20:37
	2-4km N	Recorded	9	Projectile	WNW to ESE	N/K	23-Oct, 20:37
	2-4km N	Recorded	6	Projectile	WNW to ESE	N/K	23-Oct, 20:39
	2-4km N	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 21:06
	2-4km N	Recorded	4	Projectile	WNW to ESE	N/K	23-Oct, 21:16
	2-4km N	Recorded	14	Projectile	WNW to ESE	N/K	23-Oct, 21:17
	2-4km N	Recorded	8	Projectile	WNW to ESE	N/K	23-Oct, 21:25
	2-4km N	Recorded	1	Projectile	WSW to ENE	N/K	23-Oct, 21:25
	2-4km N	Recorded	3	Projectile	WNW to ESE	N/K	23-Oct, 21:26
	2-4km N	Recorded	1	Muzzle flash		N/K	23-Oct, 21:26
	2-4km N	Recorded	1	Projectile	WNW to ESE (subsequent to previous event)	N/K	23-Oct, 21:26
	2-4km NNE	Recorded	2	Explosion	Undetermined	N/K	23-Oct, 22:44
	2-4km NE	Recorded	3	Projectile	WNW to ESE	N/K	23-Oct, 23:22
	2-4km N	Recorded	1	Projectile	SSE to NNW	N/K	24-Oct, 02:21
SE edge of Avdiivka (government-controlled, 17km N of Donetsk)	1-2km E	Heard	4	Explosion	Outgoing	N/K	24-Oct, 09:01-09:21
	1-2km E	Heard	3	Shot		Small arms	24-Oct, 10:15
	2-3km SE	Heard	1	Explosion	Undetermined	N/K	24-Oct, 10:37-10:39
	2-3km SE	Heard	10	Shot		Small arms	24-Oct, 10:37-10:39
	2-3km SE	Heard	1	Explosion	Outgoing	N/K	24-Oct, 11:00
	4-6km SW	Heard	11	Explosion	Outgoing	Artillery (type N/K)	24-Oct, 12:40-12:50
	1-2km ESE	Heard	1	Explosion	Outgoing	N/K	24-Oct, 12:45
	4-6km SW	Heard	20	Explosion	Outgoing	Artillery (type N/K)	24-Oct, 12:40-13:00
	1-2km SE	Heard	8	Explosion	Outgoing	N/K	24-Oct, 13:20-13:24
1-2km ESE	Heard	3	Explosion	Outgoing	N/K	24-Oct, 14:38	
About 1.5km E of Avdiivka (government-controlled, 17km N of Donetsk)	2-3km ENE	Heard	2	Burst		HMG	24-Oct, 11:39-11:41
	2-3km SSE	Heard	2	Explosion	Outgoing	N/K	24-Oct, 11:39-11:41
	1-2km SSE	Heard	3	Shot		Small arms	24-Oct, 11:50
	2-3km SSE	Heard	5	Explosion	Outgoing	N/K	24-Oct, 12:00-12:28
	2-3km SSE	Heard	4	Explosion	Undetermined	N/K	24-Oct, 12:09
About 2km S of Donetsk city centre (non-government-controlled)	4-5km S	Heard	39	Explosion	Undetermined	N/K	24-Oct, 14:50-15:06
About 4km NW of Debaltseve (non-government-controlled, 58km NE of Donetsk)	3-4km NNW	Heard	2	Explosion	Undetermined	N/K	24-Oct, 13:04
	3-4km N	Heard	3	Explosion	Undetermined	N/K	24-Oct, 14:04
About 1km E of Kruta Balka (non-government-controlled, 16km N of)	2-3km NW	Heard	6	Explosion	Undetermined	N/K	24-Oct, 12:00-12:06
	2-3km NW	Heard	6	Explosion	Undetermined	N/K	24-Oct, 12:16-12:20



Donetsk)							
Oleksandrivka (non-government-controlled, 20km SW of Donetsk)	3-5km N	Heard	5	Explosion	Undetermined	N/K	24-Oct, 10:32
About 2km, WNW of Pisky (government-controlled, 11km NW of Donetsk)	1-2km S	Heard	1	Explosion	Undetermined	N/K	24-Oct, 09:12
	2-3km SW	Heard	4	Explosion	Undetermined	N/K	24-Oct, 10:32-10:46
	3-5km SE	Heard	5	Explosion	Undetermined	N/K	24-Oct, 10:32-10:46
	3-5km S	Heard	7	Explosion	Undetermined	N/K	24-Oct, 10:32-10:46
	3-5km S	Heard	11	Explosion	Undetermined	N/K	24-Oct, 10:57-11:15
	2-3km SW	Heard	2	Shot		Small arms	24-Oct, 10:57-11:15
	3-5km S	Heard	4	Explosion	Undetermined	N/K	24-Oct, 11:25-11:30
	2-3km SW	Heard	2	Shot		Small arms	24-Oct, 11:25-11:30
	3-5km S	Heard	13	Explosion	Undetermined	N/K	24-Oct, 11:51-12:14
	3-5km S	Heard	32	Explosion	Undetermined	N/K	24-Oct, 12:15-12:48
About 2.5km SW of Vesele (non-government-controlled, 9km NW of Donetsk)	3-4km W	Heard	4	Explosion	Undetermined	N/K	24-Oct, 13:20
	3-4km ESE	Heard	1	Explosion	Undetermined	N/K	24-Oct, 13:54
Petrivske (non-government-controlled, 41km S of Donetsk)	1km SSE	Heard	3	Shot	Assessed as outside the disengagement area	Small arms	24-Oct, 11:12
About 1km NW of Petrivske (non-government-controlled, 21km S of Donetsk)	4-6km NW	Heard	5	Explosion	Undetermined	N/K	24-Oct, 10:50-11:04
	4-6km NNW	Heard	8	Explosion	Undetermined	N/K	24-Oct, 11:09
About 2km N of Petrivske (non-government-controlled, 41km S of Donetsk)	1-2km SE	Heard	2	Shot	Assessed as outside the disengagement area	Small arms	24-Oct, 13:50
About 1km NW of the railway station in Yasynuvata (non-government-controlled, 16km NE of Donetsk)	4-5km SW	Heard	2	Explosion	Undetermined	N/K	24-Oct, 09:11
	2-3km SW	Heard	3	Explosion	Undetermined	N/K	24-Oct, 09:16-09:20
	2-3km SW	Heard	3	Burst		Small arms	24-Oct, 09:21
	2-3km SW	Heard	1	Explosion	Undetermined	N/K	24-Oct, 09:33
	2-3km W	Heard	1	Burst		Small arms	24-Oct, 09:58
	2-3km NW	Heard	9	Shot		HMG	24-Oct, 10:10
	2-3km NW	Heard	3	Shot		Small arms	24-Oct, 10:16
	2-3km SW	Heard	4	Shot		Small arms	24-Oct, 10:22
	2-3km SW	Heard	1	Explosion	Undetermined	N/K	24-Oct, 10:36
	2-3km SW	Heard		Shot	Uncountable,	Small	24-Oct, 10:36

					overlapping	arms	
	2-3km SW	Heard	2	Shot		Small arms	24-Oct, 10:22
	2km SW	Heard	1	Explosion	Undetermined	N/K	24-Oct, 10:56
	2-3km NW	Heard	12	Burst		HMG	24-Oct, 13:50-13:54
	2-3km NW	Heard	16	Explosion	Undetermined	N/K	24-Oct, 13:50-13:54
	2-3km NW	Heard		Shot	Uncountable, overlapping	HMG	24-Oct, 13:56
	2-3km SW	Heard	12	Shot		HMG	24-Oct, 13:58
	2-3km SW	Heard		Shot	Uncountable, overlapping	HMG	24-Oct, 14:10-14:13
	2-3km SW	Heard	2	Explosion	Undetermined	N/K	24-Oct, 14:10-14:13
	2-3km SW	Heard	9	Shot		Small arms	24-Oct, 14:13-14:14
	3km SW	Heard	1	Explosion	Undetermined	N/K	24-Oct, 14:13-14:14
	2-3km NW	Heard	12	Shot		Small arms	24-Oct, 14:18
	2-3km SW	Heard		Shot	Uncountable, overlapping	Small arms	24-Oct, 14:36
	2-3km SW	Heard	5	Explosion	Undetermined	N/K	24-Oct, 14:36-14:38
About 2km ENE of Bohdaniivka (government-controlled, 41km SW of Donetsk)	1km SE	Heard	1	Burst	Assessed as inside the Petrivske disengagement area	Small arms	24-Oct, 09:30
About 1km NNW of Pyshevyk (government-controlled, 84km south of Donetsk)	3-4km ESE	Heard	8	Burst		HMG	24-Oct, 10:44-10:46
	3-4km ESE	Heard	10	Explosion	Undetermined	N/K	24-Oct, 10:44-10:46
	4-5km ESE	Heard	3	Explosion	Undetermined	N/K	24-Oct, 11:08-11:09
About 2.5km SSE of Lomakyne (government-controlled, 93km S of Donetsk)	4-6km SE	Heard	1	Explosion	Undetermined	N/K	24-Oct, 11:10
About 1km SW of Lebedynske (government-controlled, 99km S of Donetsk)	4-6km ENE	Heard	4	Explosion	Undetermined	N/K	24-Oct, 11:07-11:10
About 2km SE of Lebedynske (government-controlled, 99km south of Donetsk)	3-4km N	Heard	9	Shot		Cannon 30 mm	24-Oct, 11:36-11:44
	3-4km N	Heard	7	Shot		Cannon 30 mm	24-Oct, 11:46-11:48
	2-3km N	Heard	1	Burst		HMG	24-Oct, 11:46-11:48
	2-3km N	Heard	7	Shot		Cannon 30 mm	24-Oct, 11:50-11:55
	4-6km N	Heard	2	Explosion	Undetermined	N/K	24-Oct, 11:50-11:55
	3-4km N	Heard	7	Shot		Small arms	24-Oct, 12:05-12:27
	4-6km N	Heard	3	Explosion	Undetermined	N/K	24-Oct, 12:05-12:27

	4-6km N	Heard	2	Explosion	Undetermined	N/K	24-Oct, 12:27
About 1km NNE of Zaichenko (non-government-controlled, 93km south of Donetsk)	4-5km WSW	Heard	35	Explosion	Undetermined	N/K	24-Oct, 13:30-13:37
Horlivka (non-government-controlled, 39km NE of Donetsk)	1-2km W	Heard	36	Burst		Small arms	23-Oct, 19:58-20:05
	2-3km W	Heard	3	Explosion	Undetermined	N/K	23-Oct, 20:00
	2-3km W	Heard	8	Burst		HMG	23-Oct, 20:02-20:04
	2-3km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 20:03
	1-2km W	Heard	30	Burst		Small arms	23-Oct, 20:09-20:11
	2-3km W	Heard	20	Burst		HMG	23-Oct, 20:09-20:11
	2-3km W	Heard	3	Explosion	Undetermined	N/K	23-Oct, 20:11-20:13
	1-2km W	Heard	13	Burst		Small arms	23-Oct, 20:14
	2-3km W	Heard	3	Burst		HMG	23-Oct, 20:14
	2-3km W	Heard	2	Explosion	Undetermined	N/K	23-Oct, 20:16
	1-2km W	Heard	3	Burst		Small arms	23-Oct, 20:17
	2-3km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 20:18
	2-3km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 20:23
	2-3km W	Heard	5	Burst		HMG	23-Oct, 20:23
	1-2km W	Heard	10	Burst		Small arms	23-Oct, 20:24-20:25
	2-3km W	Heard	2	Burst		HMG	23-Oct, 20:27
	1-2km W	Heard	42	Burst		Small arms	23-Oct, 20:29-20:33
	2-4km W	Heard	2	Explosion	Undetermined	N/K	23-Oct, 20:33
	1-2km W	Heard	6	Burst		Small arms	23-Oct, 20:37-20:38
	2-4km W	Heard	10	Explosion	Undetermined	N/K	23-Oct, 20:42-20:46
	1-2km W	Heard	16	Shot		Small arms	23-Oct, 20:42
	1-2km W	Heard	69	Burst		Small arms	23-Oct, 20:43-20:47
	1-2km W	Heard	37	Burst		Small arms	23-Oct, 20:49-20:51
	1-2km W	Heard	7	Burst		Small arms	23-Oct, 21:09-21:10
	1-2km W	Heard	67	Burst		Small arms	23-Oct, 21:12-21:15
	2-4km W	Heard	3	Explosion	Undetermined	N/K	23-Oct, 21:13
	2-4km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 21:16
	1-2km W	Heard	19	Burst		Small arms	23-Oct, 21:19
	2-4km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 21:19
	2-4km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 21:22
	1-2km W	Heard	17	Burst		Small arms	23-Oct, 21:22
	2-4km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 21:23
1-2km W	Heard	17	Burst		Small arms	23-Oct, 21:24	
2-4km W	Heard	6	Explosion	Undetermined	N/K	23-Oct, 21:25-21:27	
2-3km W	Heard	7	Burst		Small arms	23-Oct, 21:26	

	3-5km W	Heard	3	Explosion	Undetermined	N/K	23-Oct, 21:28
	5-7km W	Heard	4	Explosion	Undetermined	N/K	23-Oct, 21:48
	2-3km W	Heard	14	Burst		Small arms	23-Oct, 21:29-21:30
	2-3km W	Heard	2	Burst		HMG	23-Oct, 21:30
	3-5km W	Heard	2	Explosion	Undetermined	N/K	23-Oct, 21:39
	2-3km W	Heard	9	Burst		Small arms	23-Oct, 21:39-21:40
	2-3km W	Heard	10	Burst		Small arms	23-Oct, 21:43
	3-5km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 21:45
	1-2km W	Heard	17	Shot		Small arms	23-Oct, 21:45-21:47
	2-3km W	Heard	17	Burst		Small arms	23-Oct, 21:47-21:49
	2-4km W	Heard	1	Explosion	Undetermined	N/K	23-Oct, 21:50
	2-3km WNW	Heard	64	Burst		Small arms	24-Oct, 00:35-00:37
	2-3km WNW	Heard	37	Burst		Small arms	24-Oct, 00:39-00:41
	2-3km WNW	Heard	10	Shot		Small arms	24-Oct, 00:39-00:40
	2-3km WNW	Heard	22	Burst		Small arms	24-Oct, 00:46-00:48
	2-4km W	Heard	3	Explosion	Undetermined	N/K	24-Oct, 03:12
	1-3km WNW	Heard	4	Burst		Small arms	24-Oct, 03:13
	2-4km W	Heard	8	Explosion	Undetermined	N/K	24-Oct, 03:14-03:15
	1-3km WNW	Heard	3	Burst		Small arms	24-Oct, 03:16
	1-3km WNW	Heard	10	Burst		Small arms	24-Oct, 03:19
	1-2km WNW	Heard	3	Shot		Small arms	24-Oct, 03:19
	1-3km WNW	Heard	4	Burst		Small arms	24-Oct, 03:26
	1-3km WNW	Heard	3	Burst		Small arms	24-Oct, 04:08
	1-2km W	Heard	46	Shot		Small arms	24-Oct, 10:42-10:49
	1-2km W	Heard	12	Burst		Small arms	24-Oct, 10:46-10:47
	6-8km WSW	Heard	9	Explosion		N/K	24-Oct, 17:06-17:08
Svitlodarsk (government-controlled, 57km NE of Donetsk)	3-5km S	Heard	1	Explosion	Undetermined	N/K	23-Oct, 18:45
	2-4km S	Heard	1	Explosion	Undetermined	N/K	23-Oct, 18:46
	3-4km SE	Heard	4	Burst		HMG	23-Oct, 18:50
	3-4km SE	Heard	3	Burst		HMG	23-Oct, 18:57
	3-4km SE	Heard	2	Burst		HMG	23-Oct, 19:00
	2-4km S	Heard	2	Explosion	Undetermined	N/K	23-Oct, 19:04
	2-4km SE	Heard	3	Burst		Small arms	23-Oct, 19:04
	3-5km SE	Heard	2	Explosion	Undetermined	N/K	23-Oct, 19:06
	3-5km SE	Heard	4	Explosion	Undetermined	N/K	23-Oct, 19:07
	2-3km SE	Heard	3	Burst		Small arms	23-Oct, 19:13
	4-6km SW	Heard	1	Explosion	Undetermined	N/K	23-Oct, 19:15
	2-3km SE	Heard	3	Burst		Small arms	23-Oct, 19:17
	2-3km SE	Heard	3	Burst		Small arms	23-Oct, 19:50
	4-5km S	Heard	1	Explosion	Undetermined	N/K	23-Oct, 20:04



	4-5km S	Heard	2	Explosion	Undetermined	N/K	23-Oct, 20:59
	3-5km S	Heard	5	Burst		HMG	23-Oct, 21:19-21:21
	2-4km SW	Heard	10	Burst		Small arms	23-Oct, 21:28-21:31
	3-5km S	Heard	9	Burst		HMG	23-Oct, 21:36
	3-5km S	Heard	2	Explosion	Undetermined	N/K	23-Oct, 21:36
	2-4km SW	Heard	9	Shot		Small arms	23-Oct, 21:39
	2-4km SW	Heard	1	Burst		HMG	23-Oct, 21:39
	3-5km SE	Heard	6	Burst		HMG	23-Oct, 21:51
	2-4km SW	Heard	1	Explosion	Undetermined	N/K	23-Oct, 22:04
	2-4km SW	Heard	13	Burst		HMG	23-Oct, 22:12-22:13
	2-4km SW	Heard	12	Burst		HMG	23-Oct, 22:16-22:19
	2-4km SW	Heard	2	Explosion	Undetermined	N/K	23-Oct, 22:16
	2-4km SW	Heard	13	Burst		HMG	23-Oct, 23:33
	3-5km S	Heard	1	Explosion	Undetermined	N/K	23-Oct, 23:49
	3-5km S	Heard	1	Explosion	Undetermined	N/K	24-Oct, 14:47
Holmivskiyi (non-government-controlled, 49km NE of Donetsk)	3-5km NW	Heard	2	Explosion	Undetermined	N/K	24-Oct, 09:33
	2-3km NE	Heard	1	Burst		Small arms	24-Oct, 09:47
	3-4km NW	Heard	3	Burst		HMG	24-Oct, 11:05
About 500m NE of Kamianka (government-controlled, 20km N of Donetsk)	4-5km S	Heard	2	Explosion	Undetermined	N/K	24-Dec, 09:01
	2-3km E	Heard	3	Burst		HMG	24-Dec, 10:12
	2-3km E	Heard	1	Explosion		N/K	24-Dec, 10:20
	1-2km SE	Heard	2	Burst		HMG	24-Dec, 11:37
	1-2km E	Heard	5	Shot		Small arms	24-Dec, 11:53
	2-3km SE	Heard	3	Explosion	Undetermined	N/K	24-Dec, 12:17-12:20
	2-3km S	Heard	18	Explosion	Undetermined	N/K	24-Dec, 13:52-13:56
	2-3km SE	Heard	1	Explosion	Undetermined	N/K	24-Dec, 13:56
	2-3km S	Heard	17	Burst		HMG	24-Dec, 14:30
	2-3km S	Heard	30	Burst		HMG	24-Dec, 14:38
	2-3km S	Heard	20	Explosion	Undetermined	N/K	24-Dec, 14:38
SMM camera on N edge of Popasna (government-controlled, 69km W of Luhansk)	2-4km E	Recorded	1	Projectile	NNE to SSW (assessed as outside the Zolote disengagement area)	N/K	24-Oct, 00:47
NE edge of Zolote-5/Mykhailivka (non-government-controlled, 58km W of Luhansk)	1-2km W	Heard	1	Shot	Unable to assess if inside or outside the disengagement area	Small arms	24-Oct, 10:37-10:38
	1-2km N	Heard	5	Burst		Small arms	24-Oct, 10:38-10:45
Kalynove (non-government-controlled, 60km W of Luhansk)	5-6km WSW	Heard	1	Explosion	Undetermined	N/K	24-Oct, 11:01
W edge of Pervomaisk (non-government-	3-4km SW	Heard	27	Burst	Assessed as outside the Zolote disengagement	N/K	24-Oct, 15:50-16:07

controlled, 58km W of Luhansk)					area		
	3-4km SW	Heard	4	Explosion	Undetermined (assessed as outside the Zolote disengagement area)	N/K	24-Oct, 15:50- 16:07
	3-4km SW	Heard	24	Shot	Assessed as outside the Zolote disengagement area	N/K	24-Oct, 15:50- 16:07