

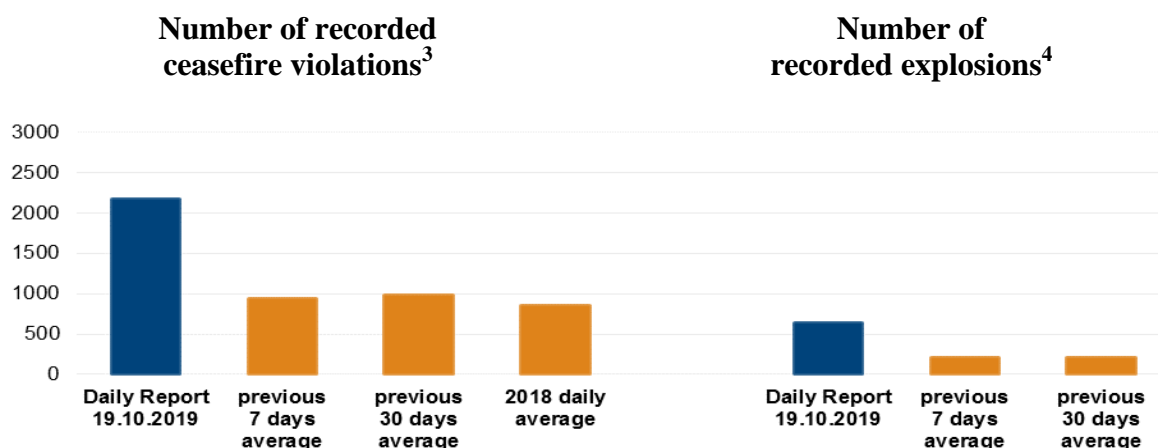
Daily Report 248/2019

19 October 2019¹

Summary

- Compared with the previous reporting period, the SMM recorded more ceasefire violations both in Donetsk and Luhansk regions.
- The Mission saw damage to a functioning school in non-government-controlled Oleksandrivka.
- Inside the Stanytsia Luhanska disengagement area, the SMM saw workers from government-controlled areas laying gravel and cement at the foundations of and transporting removed parts of the broken section of the bridge.
- The Mission observed military presence inside the disengagement areas near Petrivske and Zolote.
- The SMM saw unexploded ordnance near non-government-controlled Verkhnohyrokiivske and demining activities near government-controlled Hranitne.
- The Mission monitored adherence to the ceasefire to facilitate the operation of and repairs to critical civilian infrastructure along the contact line.
- Restrictions of the Mission's freedom of movement continued, including at a checkpoint of the armed formations near Verkhnohyrokiivske.*

Ceasefire violations²



¹ Based on information from the Monitoring Teams as of 19:30, 18 October 2019. All times are in Eastern European Summer Time.

² For a complete breakdown of ceasefire violations, please see the annexed table. During the reporting period, the SMM cameras at the Donetsk Filtration Station and in the southern part of the Zolote disengagement area were not operational. On the night of 18-19 October, fog limited the observation capabilities of some of the other SMM cameras.

³ Including explosions.

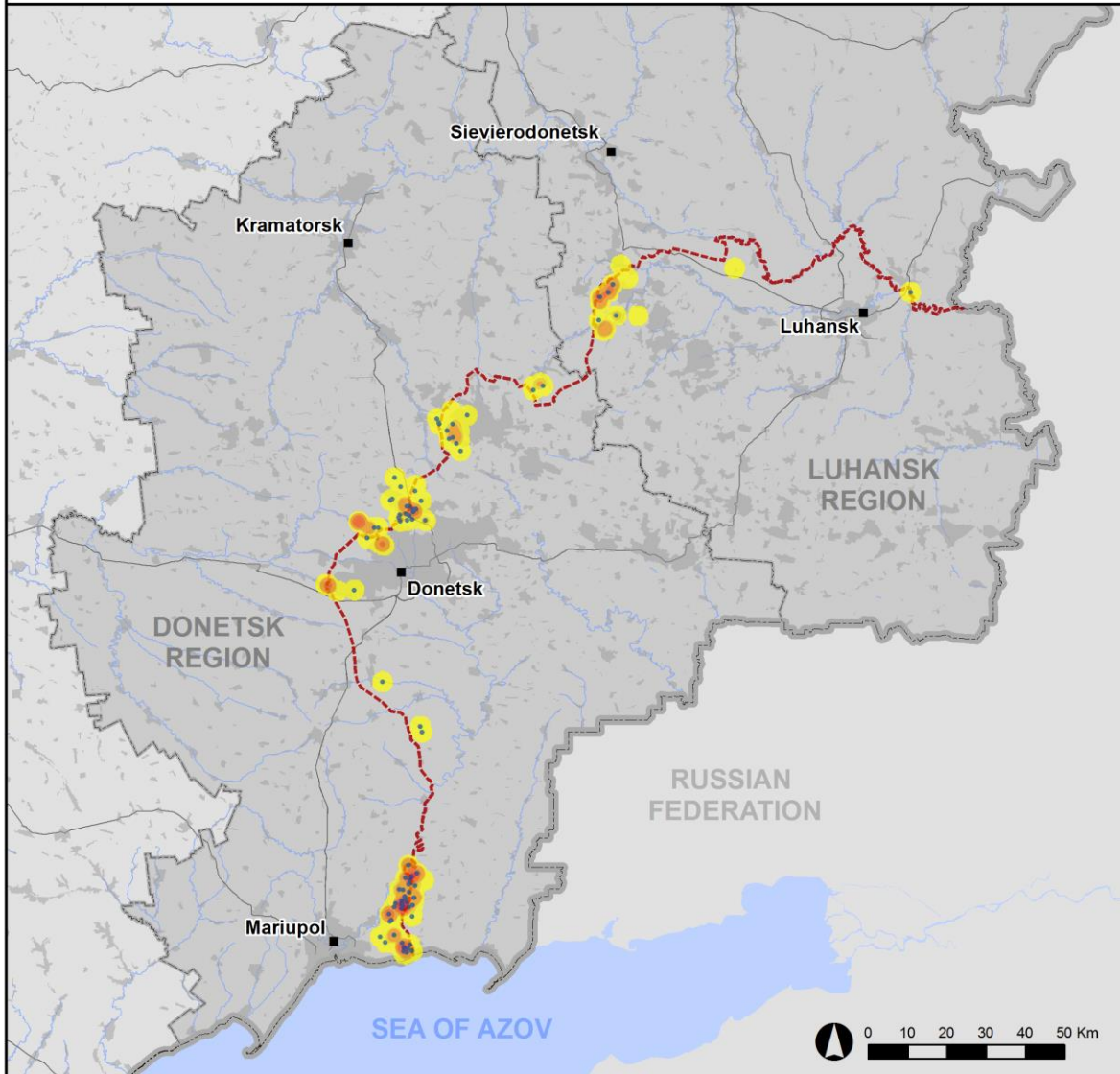
⁴ Including from unidentified weapons.

Map of recorded ceasefire violations

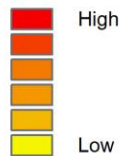


Organization for Security and
Co-operation in Europe
Special Monitoring Mission to Ukraine

Ceasefire violations observed by the SMM 18 October 2019



Ceasefire violation concentration



- Explosion
- Settlement

..... Estimated line of contact

Sources: Administrative Boundaries - OCHA; Roads, Rivers - OpenStreetMap; Sea - VLIZ (2005). IHO Sea Areas; Other - OSCE.

Coordinate System: WGS 1984 UTM Zone 37N

This map is provided for illustrative purposes only. Its content is not warranted to be error-free and does not imply endorsement or acceptance by the OSCE SMM.

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Created: 19/10/2019

In Donetsk region, the SMM recorded more ceasefire violations, including more explosions (about 485), compared with [the previous reporting period](#) (about 170 explosions). The majority of ceasefire violations were recorded in areas south-east, south-south-east and south of Chermalyk (government-controlled, 77km south of Donetsk), in areas between Pyshevyk (government-controlled, 84km south of Donetsk) and Verkhnohyrokiivske (formerly Oktiabr, non-government-controlled, 85km south of Donetsk) and in areas north-north-east and north of Shyrokyne (government-controlled, 100km south of Donetsk).

In Luhansk region, the Mission recorded more ceasefire violations, including more explosions (about 160), compared with [the previous reporting period](#) (82 explosions). The majority of ceasefire violations were recorded in areas east and south-west of Pervomaisk (non-government-controlled, 58km west of Luhansk), in areas east-south-east and south-east of Popasna (government-controlled, 69km west of Luhansk) and in areas west, west-north-west and north-west of Kalynove (non-government-controlled, 60km west of Luhansk).

Damage to a functioning school in Oleksandrivka

On 17 October, the SMM saw damage to a four-storey functioning school building on 17 Lenina Street in Oleksandrivka (non-government-controlled, 20km south-west of Donetsk). The SMM saw a hole (about 6cm in diameter) in a west-facing partially broken window on the fourth floor and another hole (about 40cm in diameter) in the building's south-facing roof. School staff told the Mission that the damage was caused by shelling on the night of 15 October. The SMM assessed that the damage was caused by probable shelling but was unable to make a further assessment as school staff did not allow it access to the school's premises, citing the need for permission from those in control.*

Disengagement areas near Stanytsia Luhanska, Zolote and Petrivske⁵

On 18 October, inside **the disengagement area near Stanytsia Luhanska** (government-controlled, 16km north-east of Luhansk), the SMM saw workers from government-controlled areas covering with gravel and cement the northern side of the broken section of the Stanytsia Luhanska bridge (15km north-east of Luhansk) to lay a foundation, and other workers collecting cut wood from the eastern edge of the broken section of the bridge and cutting and transporting iron pieces removed from the broken section of the bridge.

During the day, inside the disengagement area, the SMM saw at least seven members of the armed formations (wearing armbands with "JCCC" written on them) between the southern edge of the broken section of the bridge and the checkpoint of the armed formations. The Mission also saw six workers from non-government-controlled areas installing cables on the metal part of the bridge, inside the disengagement area. They told the SMM that the cables would be used for lighting.

While at the Stanytsia Luhanska bridge, the SMM heard an undetermined explosion 2-3km east-south-east, assessed as outside the disengagement area.

On 17 October, inside **the disengagement area near Zolote** (government-controlled, 60km west of Luhansk), an SMM mid-range unmanned aerial vehicle (UAV) spotted an SUV and four people assessed as Ukrainian Armed Forces personnel near a previously observed trench

⁵ Disengagement is foreseen in the [Framework Decision of the Trilateral Contact Group relating to disengagement of forces and hardware](#) of 21 September 2016.

about 1km east of road T-1316, 50m south of the northern edge of the disengagement area and a probable armoured combat vehicle next to a house in a residential area in the south-eastern part of Katerynivka (government-controlled, 64km west of Luhansk).

On the night of 17 October, the SMM camera in Zolote recorded a projectile in flight at an assessed range of 1-2km east, assessed as outside the disengagement area. On 18 October, positioned at the northern edge of Pervomaisk and north-east of Katerynivka, SMM patrols heard 50 ceasefire violations (including 43 explosions), all assessed as outside the Zolote disengagement area but within its 5km periphery.

On 18 October, inside Zolote the disengagement area, the SMM saw at least 30 Ukrainian Armed Forces personnel carrying out vegetation clearance on the east and west sides of road T-1316, up to 750m south of the northern border of the disengagement area. The SMM [again](#) saw at least five Ukrainian Armed Forces personnel installing concrete barriers and a steel gate on the western side of a new position with five Hesco-type barriers on the eastern shoulder of road T-1316 about 40m south of the area's northern edge.

On the same day, the SMM facilitated and monitored adherence to the ceasefire for the controlled detonation by the Ukrainian Armed Forces of a [previously reported](#) 82mm mortar tailfin embedded in the middle of the T-1316 road, inside the disengagement area.

Outside the Zolote disengagement area, on 16 October, aerial imagery available to the SMM revealed an engineering vehicle at a trench 100m north of the northern edge of the disengagement area. On 17 October, an SMM mini-UAV spotted three excavators (EOV-4421), a truck, and about 12 people, assessed as Ukrainian Armed Forces personnel digging two new trenches about 10m north of the northern edge of the disengagement area and 300m east of road T-1316, in an area where the SMM previously had seen demining activities taking place (see [SMM Daily Report 17 October 2019](#)). An SMM mini-UAV also spotted a new 60m trench starting 150m north of the northern edge of the disengagement area and continuing south-south-east.

On 16 October, inside **the disengagement area near Petrivske** (non-government-controlled 41km south of Donetsk), aerial imagery available to the SMM revealed the presence of three probable military vehicles about 570m south of its northern edge and about 1.4km west of its eastern edge, assessed as belonging to the Ukrainian Armed Forces.

On the same day, outside the disengagement area, the aerial imagery revealed two newly-built revetments (80m and 400m long), 100-270m west of the western edge of the disengagement area and new trenches about 200m and 460m south of the area's southern edge, all assessed as belonging to the Ukrainian Armed Forces.

During the day on 18 October, positioned about 2km north of Petrivske and about 2km north-east of Bohdanivka (government-controlled, 41km south-west of Donetsk), the SMM heard eight ceasefire violations (including seven undetermined explosions), all assessed as outside the disengagement area but within its 5km periphery.

Withdrawal of weapons

The SMM continued to monitor the withdrawal of weapons in implementation of the Memorandum and the Package of Measures and its Addendum.

The Mission observed two weapons in violation of withdrawal lines in non-government-controlled areas of Luhansk region and 18 weapons beyond withdrawal lines but outside of designated storage sites in government-controlled areas of Donetsk region (for further details, see the tables below).

Indications of military and military-type presence in the security zone⁶

The SMM observed military and military-type presence, armoured combat vehicles, armoured personnel carriers and infantry fighting vehicles in the security zone, on both sides of the contact line, including in residential areas of government-controlled Avdiivka (17km north of Donetsk) and non-government-controlled Novoazovsk (102km south-east of Donetsk) (for more details, see the table below).

Demining activities near Hranitne and unexploded ordnance (UXO) near Verkhnohshyrovsk

The SMM saw about 20 people in clothing bearing the logo of an international organization, some of them holding demining tools, conducting demining activities on the northern side of road T0512 between Hranitne (government-controlled, 60km south of Donetsk) and Myrne (government-controlled, 63km south of Donetsk).

In a field 1km west of Verkhnohshyrovsk (formerly Oktiabr, non-government-controlled, 85km south of Donetsk), the SMM saw for the first time a piece of an unexploded 120mm mortar round embedded about 0.5m north of a road.

SMM facilitation of operation of and repair works to civilian infrastructure

The SMM monitored adherence to the ceasefire to facilitate repairs to power lines servicing the Petrivske pumping station near Artema (government-controlled, 26km north of Luhansk), the maintenance of the Phenol Sludge Reservoir near Zalizne (formerly Artemove, government-controlled, 42km north-east of Donetsk) and the drilling of water wells in Raivka (non-government-controlled, 16km north-west of Luhansk).

The Mission continued to facilitate the operation of the Donetsk Filtration Station (DFS) (15km north of Donetsk). Positioned 1km north-west of the railway station in Yasynuvata (non-government-controlled, 16km north-east of Donetsk), the SMM heard and saw four explosions 1-2.5km south-west, assessed as impacts within the 1.5km periphery of the DFS.

Border areas not under government control

While at a border crossing point near Uspenka (73km south-east of Donetsk) for two hours, the SMM saw 28 cars (eight with Ukrainian, seven with Russian Federation and two with Lithuanian licence plates, and 11 with “DPR” plates), 19 covered cargo trucks (11 with Ukrainian and two with Russian Federation, and six with “DPR” plates), a bus (with “DPR” plates) and 36 pedestrians (21 women, 12 men and three children) entering Ukraine. During the same time, the Mission saw 26 cars (four with Ukrainian, eight with Russian Federation and one with Georgian licence plates, and 13 with “DPR” plates), three buses (one with

⁶ The hardware mentioned in this section is not proscribed by the provisions of the Minsk agreements on the withdrawal of weapons.

Russian Federation licence plates and two with “DPR” plates) and nine pedestrians (a woman and eight men) exiting Ukraine.

Public gathering in front of the SMM premises in Luhansk

The SMM saw 19 people (men and women in their twenties) gathered in front of the SMM premises in non-government-controlled Luhansk city, expressing messages critical of the visa policy of the Schengen Area.

The Mission continued monitoring in Kherson, Odessa, Lviv, Ivano-Frankivsk, Kharkiv, Dnipro, Chernivtsi and Kyiv.

*Restrictions of the SMM’s freedom of movement or other impediments to fulfilment of its mandate

The SMM’s monitoring and freedom of movement are restricted by security hazards and threats, including risks posed by mines, UXO and other impediments – which vary from day to day. The SMM’s mandate provides for safe and secure access throughout Ukraine. All signatories of the Package of Measures have agreed on the need for this safe and secure access, that restriction of the SMM’s freedom of movement constitutes a violation, and on the need for rapid response to these violations. They have also agreed that the JCCC should contribute to such response and co-ordinate mine clearance. Nonetheless, the armed formations in parts of Donetsk and Luhansk regions frequently deny the SMM access to areas adjacent to Ukraine’s border outside control of the Government (for example, see [SMM Daily Report 16 October 2019](#)). The SMM’s operations in Donetsk and Luhansk regions remain restricted following [the fatal incident of 23 April 2017 near Pryshyb](#); these restrictions continued to limit the Mission’s observations.

Denial of access:

- At a checkpoint west of Verkhnohyrokiivske (formerly Oktiabr, non-government-controlled, 85km south of Donetsk), on two occasions, a member of the armed formations [again](#) denied the SMM passage, citing “ongoing special operation and demining activities in the area”.
- A staff member of a school in Oleksandrivka (non-government-controlled, 20km southwest of Donetsk) denied the SMM access to the school premises without permission from those in control, thus preventing the Mission from conducting an assessment of the damage to the school.

Regular restrictions related to disengagement areas and mines/UXO:

- The sides continued to deny the SMM full access, as well as the ability to travel certain roads previously identified as important for effective monitoring by the Mission and for civilians’ movement, through failure to conduct comprehensive clearance of mines, UXO and other obstacles.

Other impediments:

- On the night of 17 and 18 October, an SMM long-range UAV lost its GPS signal due to signal interference, assessed as caused by probable jamming, while flying near Stepanivka (government-controlled, 54km north of Donetsk).⁷

⁷ The interference could have originated from anywhere within a radius of kilometres from the UAVs’ positions.

Table of weapons

Weapons in violation of the withdrawal lines

Date	No.	Type	Location	Source of observation
Non-government-controlled areas				
17/10/2019	2	Mortar (one 2B11 <i>Sani</i> , 120mm and one undetermined)	1.3km south-south-west of Zholobok (47km west of Luhansk)	Mini-UAV

Beyond withdrawal lines but outside of designated storage sites

Date	No.	Type	Location	Source of observation
Government-controlled areas				
17/10/2019	5	Tank (T-72)	Railway station in Kostiantynivka (60km north of Donetsk)	Long-range UAV
18/10/2019	8	Tank (T-64)	Railway station in Kostiantynivka (60km north of Donetsk)	Patrol
	1	Self-propelled howitzer (2S3 <i>Akatsiya</i> , 152mm)	Railway station in Druzhkivka (72km north of Donetsk)	
	4	Multiple launch rocket system (BM-21 <i>Grad</i> , 122mm)	In Rivne (55km north-west of Donetsk)	

Table of military presence in the security zone⁸

Date	No. of weapons	Type of weapons	Location	Source of observation
Government-controlled areas				
17/10/2019	2	Armoured combat vehicle	4km north-north-east of Slavne (26km south-west of Donetsk)	Long-range UAV
	1	Infantry fighting vehicle (BMP-2)		
	3	Infantry fighting vehicle (BMP-2)	3-4km south-east of Bohdanivka (41km south-west of Donetsk)	
18/10/2019	2	Armoured personnel carrier (an MT-LB and a KrAZ Cougar with a heavy machine gun)	North of the disengagement area near Zolote (60km west of Luhansk) (for previous observations in this area see SMM Daily 18 October 2019)	Patrol
	25	Ukrainian Armed Forces personnel	Fortifying trenches and positions around 1km east and around 750m west of road T-1316, up to 2km north of the northern edge of the disengagement area near Zolote.	
	9	Engineering vehicles		
	1	Infantry fighting vehicle (BTR-4)	In a residential area in Avdiivka (17km north of Donetsk)	
	1	Armoured personnel carrier (BTR-60)		
Non-government-controlled areas				
17/10/2019	1	Infantry fighting vehicle (BMP variant)	Near a residential area in Novoazovsk (102km south-east of Donetsk)	Long-range UAV
	2	Armoured personnel carrier (BTR variant)		

⁸ The hardware mentioned in this section is not proscribed by the provisions of the Minsk agreements on the withdrawal of weapons.

1	Armoured combat vehicle ⁹	2km south-west of Vedenske (90km south of Donetsk)
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Table of ceasefire violations as of 18 October 2019¹⁰

SMM position	Event location	Means	No.	Observation	Description	Weapon	Date, time
SMM camera in Avdiivka (government-controlled, 17km N of Donetsk)	2-4km SSE	Recorded	1	Projectile	WNW to ESE	N/K	18-Oct, 02:11
	2-4km SSE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	18-Oct, 02:11
	2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 02:11
	3-5km SSE	Recorded	2	Explosion	Undetermined	N/K	18-Oct, 02:19
	3-5km SSE	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 05:17
SMM camera in Berezove (government-controlled, 31km SW of Donetsk)	3-5km SSE	Recorded	3	Projectile	NNE to SSW	N/K	18-Oct, 18:24
	3-5km SE	Recorded	1	Projectile	NE to SW	N/K	18-Oct, 01:26
SMM camera in Chermalyk (government-controlled, 77km S of Donetsk)	3-5km S	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:30
	3-5km S	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:30
	3-5km S	Recorded	2	Muzzle flash		N/K	17-Oct, 18:30
	3-5km SE	Recorded	4	Projectile	WSW to ENE	N/K	17-Oct, 18:31
	3-5km SE	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:31
	3-5km SSE	Recorded	25	Projectile	ENE to WSW	N/K	17-Oct, 18:31
	3-5km S	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:32
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:32
	3-5km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:32
	3-5km SE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:32
	3-5km S	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:32
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:33
	3-5km SSE	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:33
	3-5km SE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:33
	3-5km S	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:33
	3-5km S	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:33
	3-5km SE	Recorded	3	Projectile	WSW to ENE	N/K	17-Oct, 18:34
	3-5km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:34
	3-5km SSE	Recorded	1	Explosion		N/K	17-Oct, 18:34
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:35
	3-5km S	Recorded	1	Explosion		N/K	17-Oct, 18:35
	3-5km SSE	Recorded	2	Explosion	Impact	N/K	17-Oct, 18:35
	3-5km SE	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:35
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:36
	3-5km SSE	Recorded	2	Muzzle flash		N/K	17-Oct, 18:36
	3-5km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:36
	3-5km SSE	Recorded	3	Projectile	WSW to ENE	N/K	17-Oct, 18:37
	3-5km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:37
	3-5km SE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:37

⁹ This equipment was spotted in a zone within which deployment of heavy armaments and military equipment is proscribed according to Point 5 of the Memorandum of 19 September 2014

¹⁰ 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.

3-5km S	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:37
3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:38
3-5km SSE	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:38
3-5km S	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 18:38
3-5km S	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:38
3-5km S	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:39
3-5km S	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:39
3-5km SSE	Recorded	1	Projectile	ENE to WSW	N/K	17-Oct, 18:40
3-5km SSE	Recorded	2	Muzzle flash		N/K	17-Oct, 18:40
3-5km S	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:42
3-5km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:43
3-5km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:45
3-5km SSE	Recorded	1	Explosion	Airburst	N/K	17-Oct, 18:45
3-5km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:46
3-5km SSE	Recorded	1	Explosion	Airburst	N/K	17-Oct, 18:46
3-5km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:48
3-5km SSE	Recorded	1	Projectile	ENE to WSW	N/K	17-Oct, 18:49
3-5km SSE	Recorded	1	Muzzle flash		N/K	17-Oct, 18:50
3-5km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:51
3-5km SE	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:51
5-8km SSE	Recorded	1	Illumination flare	In vertical flight	N/K	17-Oct, 18:52
3-5km SSE	Recorded	1	Explosion		N/K	17-Oct, 18:52
5-8km SSE	Recorded	5	Projectile	WSW to ENE	N/K	17-Oct, 18:53
3-5km SSE	Recorded	38	Projectile	WSW to ENE	N/K	17-Oct, 18:56
5-8km SSE	Recorded	1	Explosion	Airburst	N/K	17-Oct, 19:04
3-5km SSE	Recorded	1	Projectile	ENE to WSW	N/K	17-Oct, 19:09
3-5km SSE	Recorded	1	Explosion	Airburst	N/K	17-Oct, 19:09
3-5km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:12
5-8km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 19:12
5-8km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 19:13
3-5km SE	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 19:14
5-8km SE	Recorded	4	Projectile	WNW to ESE	N/K	17-Oct, 19:16
3-5km S	Recorded	5	Projectile	WNW to ESE	N/K	17-Oct, 19:19
3-5km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:19
3-5km S	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 19:20
3-5km SE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:21
3-5km SSE	Recorded	1	Projectile	NW to SE	N/K	17-Oct, 19:21
3-5km SSE	Recorded	1	Projectile	NW to SE	N/K	17-Oct, 19:22
3-5km SSE	Recorded	1	Muzzle flash		N/K	17-Oct, 19:25
3-5km SSE	Recorded	1	Projectile	ENE to WSW	N/K	17-Oct, 19:26
5-8km S	Recorded	12	Projectile	WNW to ESE	N/K	17-Oct, 19:26
3-5km S	Recorded	1	Explosion	Impact	N/K	17-Oct, 19:27
3-5km SE	Recorded	1	Projectile	ENE to WSW	N/K	17-Oct, 19:27
5-8km S	Recorded	6	Projectile	WNW to ESE	N/K	17-Oct, 19:27
3-5km SSE	Recorded	1	Muzzle flash		N/K	17-Oct, 19:28
3-5km SSE	Recorded	1	Explosion	Impact	N/K	17-Oct, 19:28
5-8km SSE	Recorded	2	Explosion	Airburst	N/K	17-Oct, 19:29
3-5km SSE	Recorded	1	Explosion	Airburst	N/K	17-Oct, 19:32
3-5km SE	Recorded	1	Projectile	ENE to WSW	N/K	17-Oct, 19:32
5-8km S	Recorded	2	Projectile	WNW to ESE	N/K	17-Oct, 19:33
5-8km S	Recorded	1	Projectile	WNW to ESE (in vertical flight)	N/K	17-Oct, 19:34
3-5km SE	Recorded	6	Projectile	ENE to WSW	N/K	17-Oct, 19:35
3-5km SE	Recorded	4	Projectile	ENE to WSW	N/K	17-Oct, 20:03
3-5km SE	Recorded	2	Projectile	ENE to WSW	N/K	17-Oct, 20:04
3-5km SE	Recorded	4	Projectile	WSW to ENE	N/K	17-Oct, 20:14
3-5km SE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 20:15
3-5km SE	Recorded	6	Projectile	WSW to ENE	N/K	17-Oct, 20:20
3-5km SSE	Recorded	10	Projectile	WSW to ENE	N/K	17-Oct, 20:27

	3-5km SE	Recorded	4	Projectile	WSW to ENE	N/K	17-Oct, 20:28
	3-5km SE	Recorded	3	Projectile	WSW to ENE	N/K	17-Oct, 20:29
	3-5km SSE	Recorded	1	Explosion	Impact	N/K	17-Oct, 20:38
	3-5km SSE	Recorded	1	Projectile	ENE to WSW	N/K	17-Oct, 20:49
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	17-Oct, 21:04
	3-5km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 21:05
	3-5km SSE	Recorded	1	Projectile	In vertical flight	N/K	17-Oct, 21:05
	3-5km SSE	Recorded	28	Projectile	ENE to WSW	N/K	17-Oct, 21:41
	3-5km SE	Recorded	2	Projectile	ENE to WSW	N/K	17-Oct, 22:01
	3-5km SE	Recorded	5	Projectile	ENE to WSW	N/K	17-Oct, 23:20
	3-5km SSE	Recorded	1	Projectile	NNE to SSW	N/K	17-Oct, 23:21
	3-5km SE	Recorded	12	Projectile	ENE to WSW	N/K	17-Oct, 23:36
	3-5km SE	Recorded	8	Projectile	ENE to WSW	N/K	17-Oct, 23:37
					WSW to ENE (impact observed)	N/K	
	3-5km SSE	Recorded	1	Projectile			17-Oct, 23:44
	3-5km SE	Recorded	1	Projectile	NE to SW	N/K	17-Oct, 23:56
	3-5km SE	Recorded	8	Projectile	ENE to WSW	N/K	17-Oct, 23:57
	3-5km SSE	Recorded	7	Projectile	ENE to WSW	N/K	18-Oct, 00:10
	3-5km SSE	Recorded	7	Projectile	ENE to WSW	N/K	18-Oct, 00:18
	3-5km S	Recorded	1	Muzzle flash		N/K	18-Oct, 00:18
	3-5km SSE	Recorded	18	Projectile	ENE to WSW	N/K	18-Oct, 00:36
					ENE to WSW (impact observed)	N/K	
	3-5km S	Recorded	1	Projectile			18-Oct, 00:41
	4-6km E	Recorded	1	Muzzle flash		N/K	17-Oct, 18:30
					NNW to SSE (impact observed)	N/K	
	4-6km E	Recorded	1	Projectile			17-Oct, 18:30
					Impact, subsequent to previous event	N/K	
	4-6km E	Recorded	1	Explosion			17-Oct, 18:30
	4-6km E	Recorded	2	Projectile	NNW to SSE	N/K	17-Oct, 18:31
	4-6km E	Recorded	1	Explosion		N/K	17-Oct, 18:31
					W to E (approx. 10 rounds)	N/K	
	4-6km E	Recorded	1	Burst			17-Oct, 18:31
	4-6km E	Recorded	3	Projectile	SSW to NNE	N/K	17-Oct, 18:32
					NNW to SSE (impact observed)	N/K	
	4-6km E	Recorded	1	Projectile			17-Oct, 18:33
					Impact (subsequent to previous event)	N/K	
	4-6km E	Recorded	1	Explosion			17-Oct, 18:33
	4-6km E	Recorded	1	Explosion		N/K	17-Oct, 18:35
	4-6km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Oct, 18:36
					NNW to SSE (subsequent to previous event)	N/K	
	4-6km E	Recorded	1	Projectile			17-Oct, 18:36
	4-6km E	Recorded	2	Explosion		N/K	17-Oct, 18:37
	4-6km E	Recorded	1	Muzzle flash		N/K	17-Oct, 18:37
					NNW to SSE (subsequent to previous event)	N/K	
	4-6km E	Recorded	1	Projectile			17-Oct, 18:37
	4-6km E	Recorded	1	Muzzle flash		N/K	17-Oct, 18:39
					NNW to SSE (subsequent to previous event)	N/K	
	4-6km E	Recorded	1	Projectile			17-Oct, 18:39
					Impact (subsequent to previous event)	N/K	
	4-6km E	Recorded	1	Explosion			17-Oct, 18:39
	4-6km E	Recorded	1	Explosion		N/K	17-Oct, 18:40
	4-6km ESE	Recorded	1	Muzzle flash		N/K	17-Oct, 18:43
	4-6km ESE	Recorded	1	Projectile	SW to NE	N/K	17-Oct, 18:43

SMM camera 1.5km NE of Hnutove (government-controlled, 90km S of Donetsk)

					(subsequent to previous event)		
	4-6km ESE	Recorded	1	Muzzle flash		N/K	17-Oct, 18:45
	4-6km ESE	Recorded	1	Projectile	SW to NE (subsequent to previous event)	N/K	17-Oct, 18:45
	4-6km ESE	Recorded	1	Muzzle flash		N/K	17-Oct, 18:46
	4-6km ESE	Recorded	1	Projectile	SW to NE (subsequent to previous event)	N/K	17-Oct, 18:46
	4-6km E	Recorded	5	Projectile	SW to NE	N/K	17-Oct, 18:53
	4-6km ENE	Recorded	1	Projectile	NW to SE	N/K	17-Oct, 19:13
	4-6km ESE	Recorded	1	Explosion	Airburst	N/K	17-Oct, 19:14
	4-6km E	Recorded	5	Projectile	WSW to ENE	N/K	17-Oct, 19:19
	4-6km E	Recorded	1	Muzzle flash		N/K	17-Oct, 19:19
	4-6km E	Recorded	1	Projectile	NNW to SSE (subsequent to previous event)	N/K	17-Oct, 19:19
	4-6km E	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	17-Oct, 19:19
	4-6km E	Recorded	1	Muzzle flash		N/K	17-Oct, 19:20
	4-6km E	Recorded	1	Projectile	NNW to SSE (subsequent to previous event)	N/K	17-Oct, 19:20
	4-6km E	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	17-Oct, 19:20
	4-6km E	Recorded	1	Muzzle flash		N/K	17-Oct, 19:26
	4-6km E	Recorded	1	Projectile	NW to SE (subsequent to previous event)	N/K	17-Oct, 19:26
	4-6km E	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 19:27
	4-6km E	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:28
	4-6km E	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:29
	4-6km E	Recorded	1	Projectile	SW to NE	N/K	17-Oct, 19:29
	4-6km E	Recorded	1	Projectile	SW to NE	N/K	17-Oct, 19:32
	4-6km ESE	Recorded	1	Illumination flare	In vertical flight (also recorded by the SMM Cameras in Lomakyne and Pyshevyk)	N/K	18-Oct, 00:44
SMM camera E of Lomakyne (government-controlled, 90km S of Donetsk)	2-4km NE	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	17-Oct, 19:32
	2-4km NE	Recorded	4	Projectile	NW to SE	N/K	17-Oct, 19:33
	2-3km NE	Recorded	1	Explosion	Impact	N/K	17-Oct, 20:36
	2-3km NNE	Recorded	11	Projectile	W to E	N/K	17-Oct, 21:26
SMM camera at entry-exit checkpoint in Marinka (government-controlled, 23km SW of Donetsk)	2-3km NNE	Recorded	14	Projectile	W to E	N/K	17-Oct, 21:27
	2-3km NNE	Recorded	9	Projectile	W to E	N/K	17-Oct, 21:29
	2-3km NNE	Recorded	12	Projectile	W to E	N/K	17-Oct, 21:30
	2-3km NNE	Recorded	22	Projectile	W to E	N/K	17-Oct, 22:30
	2-3km NNE	Recorded	5	Projectile	W to E	N/K	17-Oct, 23:50
	2-3km NNE	Recorded	3	Projectile	W to E	N/K	17-Oct, 23:51
	2-3km NNE	Recorded	4	Projectile	W to E	N/K	17-Oct, 23:52
	2-3km NNE	Recorded	4	Projectile	W to E	N/K	17-Oct, 23:52
SMM camera at Oktiabr mine (non-government-controlled, 9km NW of Donetsk city centre)	3-5km W	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 23:35
	3-5km W	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 02:15
SMM camera at entry-exit	1-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:30
	1-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:31

checkpoint in Pyshchevyk (government-controlled, 84km S of Donetsk)	1-3km SSE	Recorded	1	Burst	E to W (approximately 50 rounds)	N/K	17-Oct, 18:31
	1-3km SSE	Recorded	3	Projectile	W to E	N/K	17-Oct, 18:32
	1-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:33
	1-3km SSE	Recorded	1	Explosion	Outgoing (subsequent to previous event)	N/K	17-Oct, 18:33
	2-4km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:33
	2-4km S	Recorded	2	Projectile	In vertical flight	N/K	17-Oct, 18:37
	1-3km SSE	Recorded	1	Projectile	WSW to ENE (subsequent to previous event)	N/K	17-Oct, 18:38
	1-3km SSE	Recorded	1	Explosion	Outgoing	N/K	17-Oct, 18:38
	2-4km S	Recorded	1	Projectile	In vertical flight	N/K	17-Oct, 18:38
	2-4km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:41
	2-4km S	Recorded	1	Projectile	W to E	N/K	17-Oct, 18:43
	1-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 18:43
	1-3km SSE	Recorded	1	Projectile	WSW to ENE (subsequent to previous event)	N/K	17-Oct, 18:46
	1-3km SSE	Recorded	1	Explosion	Outgoing	N/K	17-Oct, 18:46
	1-3km SSE	Recorded	2	Burst	W to E (approximately 50 rounds)	N/K	17-Oct, 18:56
	1-3km SSE	Recorded	1	Projectile	E to W	N/K	17-Oct, 19:02
	1-3km SSE	Recorded	1	Explosion	Airburst (subsequent to previous event)	N/K	17-Oct, 19:02
	1-3km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:04
	2-3km SSE	Recorded	1	Muzzle flash		N/K	17-Oct, 19:19
	2-3km SSE	Recorded	10	Projectile	W to E	N/K	17-Oct, 19:19
	2-3km SSE	Recorded	1	Muzzle flash		N/K	17-Oct, 19:20
	2-3km SSE	Recorded	1	Projectile	W to E (subsequent to previous event)	N/K	17-Oct, 19:20
	2-3km SSE	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	17-Oct, 19:20
	2-3km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:25
	2-3km S	Recorded	6	Burst	W to E (approx. 10 projectiles per burst)	N/K	17-Oct, 19:26
	2-3km SSE	Recorded	1	Projectile	NE to SW	N/K	17-Oct, 19:26
	4-6km S	Recorded	4	Burst	W to E	N/K	17-Oct, 19:27
	4-6km S	Recorded	5	Projectile	NNW to SSE	N/K	17-Oct, 19:27
	4-6km SSE	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 19:27
	2-3km SSE	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 19:28
	2-3km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:29
	3-5km S	Recorded	15	Projectile	W to E	N/K	17-Oct, 19:29
	2-4km S	Recorded	2	Projectile	NW to SE	N/K	17-Oct, 19:30
	2-4km S	Recorded	1	Projectile	NW to SE	N/K	17-Oct, 19:34
	3-5km S	Recorded	14	Projectile	NW to SE	N/K	17-Oct, 20:05
	3-5km S	Recorded	5	Projectile	NW to SE	N/K	17-Oct, 20:08
	3-5km S	Recorded	14	Projectile	NW to SE	N/K	17-Oct, 20:09
	3-5km S	Recorded	5	Projectile	W to E	N/K	17-Oct, 20:11
	3-5km S	Recorded	7	Projectile	NW to SE	N/K	17-Oct, 20:12
	4-6km S	Recorded	5	Projectile	W to E	N/K	17-Oct, 20:13
	2-4km S	Recorded	1	Projectile	NW to SE	N/K	17-Oct, 20:21
2-4km S	Recorded	1	Explosion	Airburst, subsequent to projectile	N/K	17-Oct, 20:21	
2-4km S	Recorded	1	Projectile	NE to SW	N/K	17-Oct, 20:23	

	4-6km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:31
	4-6km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:32
	3-5km S	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 20:33
	3-5km SSW	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:33
	4-6km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:35
	4-6km SSW	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 20:36
	4-6km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:36
	4-6km SSW	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:37
	3-5km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:43
	4-6km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:43
	4-6km S	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:44
	4-6km S	Recorded	6	Projectile	NW to SE	N/K	17-Oct, 21:28
	4-6km S	Recorded	5	Projectile	W to E	N/K	17-Oct, 21:41
	4-6km S	Recorded	2	Projectile	W to E	N/K	17-Oct, 21:42
	3-5km S	Recorded	1	Muzzle flash	Undetermined	N/K	17-Oct, 21:59
	4-6km S	Recorded	1	Projectile	W to E	N/K	17-Oct, 22:35
	4-6km S	Recorded	1	Projectile	NW to SE	N/K	17-Oct, 23:37
	4-6km S	Recorded	1	Projectile	NW to SE	N/K	17-Oct, 23:43
	4-6km S	Recorded	4	Projectile	W to E	N/K	17-Oct, 23:46
	3-5km S	Recorded	1	Projectile	E to W	N/K	18-Oct, 00:01
	3-5km S	Recorded	1	Projectile	W to E	N/K	18-Oct, 00:01
	3-5km S	Recorded	1	Projectile	W to E	N/K	18-Oct, 00:04
	3-5km SSE	Recorded	8	Projectile	In vertical flight	N/K	18-Oct, 00:05
	3-5km SSE	Recorded	3	Projectile	W to E	N/K	18-Oct, 00:05
	3-5km S	Recorded	3	Explosion	Undetermined	N/K	18-Oct, 00:05
	3-5km SSE	Recorded	8	Projectile	In vertical flight	N/K	18-Oct, 00:06
	3-5km S	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 00:06
	3-5km S	Recorded	3	Projectile	W to E	N/K	18-Oct, 00:07
	3-5km S	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 00:07
	2-4km SSE	Recorded	1	Projectile	NE to SW	N/K	18-Oct, 00:07
	3-5km S	Recorded	3	Explosion	Undetermined	N/K	18-Oct, 00:08
	3-5km S	Recorded	3	Projectile	W to E	N/K	18-Oct, 00:08
	4-6km S	Recorded	1	Projectile	W to E	N/K	18-Oct, 00:10
	4-6km S	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 00:11
	3-5km S	Recorded	1	Projectile	W to E	N/K	18-Oct, 00:11
	3-4km S	Recorded	2	Projectile	W to E	N/K	18-Oct, 00:14
	3-4km S	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 00:14
	3-4km S	Recorded	1	Explosion	Undetermined	N/K	18-Oct, 00:15
	2-3km SSE	Recorded	1	Projectile	SE to NW	N/K	18-Oct, 00:23
	3-4km SSE	Recorded	2	Projectile	E to W	N/K	18-Oct, 00:41
	3-4km SSE	Recorded	1	Explosion	In air	N/K	18-Oct, 00:41
	3-4km SSE	Recorded	1	Projectile	NE to SW	N/K	18-Oct, 00:41
	4-6km S	Recorded	4	Projectile	WNW to ESE	N/K	18-Oct, 01:47
SMM camera 1km SW of Shyrokyne (government-controlled, 100km S of Donetsk)	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:30
	2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:30
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	17-Oct, 18:31
	2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 18:31
	2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:31
	2-4km N	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:32
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	17-Oct, 18:32
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:33
	2-4km N	Recorded	3	Explosion	Undetermined	N/K	17-Oct, 18:33
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	17-Oct, 18:34
	1-2km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 18:34
	2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:34
	2-4km N	Recorded	13	Projectile	WNW to ESE	N/K	17-Oct, 18:35
	2-4km N	Recorded	7	Explosion	Undetermined	N/K	17-Oct, 18:35
	2-4km N	Recorded	10	Projectile	ESE to WNW	N/K	17-Oct, 18:36
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:36
	2-4km N	Recorded	1	Muzzle flash		N/K	17-Oct, 18:36

2-4km N	Recorded	6	Explosion	Undetermined	N/K	17-Oct, 18:36
1-2km NNE	Recorded	14	Projectile	ESE to WNW	N/K	17-Oct, 18:37
2-4km N	Recorded	8	Explosion	Undetermined	N/K	17-Oct, 18:37
2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	17-Oct, 18:37
2-4km N	Recorded	6	Explosion	Undetermined	N/K	17-Oct, 18:38
1-2km NNE	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:38
2-4km N	Recorded	3	Projectile	ESE to WNW	N/K	17-Oct, 18:38
2-4km N	Recorded	10	Projectile	ESE to WNW	N/K	17-Oct, 18:39
2-4km N	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:39
2-4km N	Recorded	4	Explosion	Undetermined	N/K	17-Oct, 18:40
2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 18:40
2-4km N	Recorded	4	Explosion	Undetermined	N/K	17-Oct, 18:41
2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 18:41
2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:41
2-4km N	Recorded	4	Projectile	ESE to WNW	N/K	17-Oct, 18:42
2-4km N	Recorded	4	Projectile	WNW to ESE	N/K	17-Oct, 18:42
2-4km N	Recorded	4	Projectile	ESE to WNW	N/K	17-Oct, 18:43
2-4km N	Recorded	6	Projectile	WNW to ESE	N/K	17-Oct, 18:43
2-4km N	Recorded	3	Projectile	WNW to ESE	N/K	17-Oct, 18:44
2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:45
2-4km N	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 18:45
2-4km N	Recorded	3	Projectile	WNW to ESE	N/K	17-Oct, 18:46
2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 18:46
2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:46
2-4km N	Recorded	2	Projectile	ESE to WNW	N/K	17-Oct, 18:47
1-2km NNE	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:47
2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:47
2-4km N	Recorded	5	Explosion	Undetermined	N/K	17-Oct, 18:48
2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 18:48
2-4km N	Recorded	2	Projectile	ESE to WNW	N/K	17-Oct, 18:49
2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 18:49
2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:51
2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:52
2-4km N	Recorded	3	Explosion	Undetermined	N/K	17-Oct, 18:52
2-4km N	Recorded	3	Projectile	ESE to WNW	N/K	17-Oct, 18:52
2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:53
2-4km N	Recorded	3	Projectile	WNW to ESE	N/K	17-Oct, 18:56
2-4km NNE	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:57
2-4km NNE	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 18:58
2-4km NNE	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 19:00
2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 19:02
2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:02
2-4km NE	Recorded	2	Projectile	ESE to WNW	N/K	17-Oct, 19:13
2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:14
2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 19:19
2-4km N	Recorded	2	Explosion	Undetermined	N/K	17-Oct, 19:20
2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 19:22
2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 19:26
2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:27
2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 19:29
2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 19:29
2-4km NNE	Recorded	3	Projectile	WNW to ESE	N/K	17-Oct, 19:42
2-4km NE	Recorded	2	Projectile	ESE to WNW	N/K	17-Oct, 19:48
2-4km N	Recorded	4	Projectile	W to E	N/K	17-Oct, 20:09
2-4km N	Recorded	5	Projectile	W to E	N/K	17-Oct, 20:12
1-3km NNE	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 20:12
1-3km NNE	Recorded	2	Projectile	WNW to ESE	N/K	17-Oct, 20:13
2-4km NNE	Recorded	2	Projectile	W to E	N/K	17-Oct, 20:28
1-3km NNE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:31
1-3km NNE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:32

	1-3km NNE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:33
	2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	17-Oct, 20:34
	2-4km NNE	Recorded	1	Explosion	Impact, subsequent to previous event	N/K	17-Oct, 20:34
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 20:34
	1-3km NNE	Recorded	1	Projectile	W to E	N/K	17-Oct, 20:52
	1-3km N	Recorded	2	Projectile	ESE to WNW	N/K	17-Oct, 21:06
	3-5km NNE	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 21:06
	2-4km N	Recorded	5	Projectile	WNW to ESE	N/K	17-Oct, 21:28
	2-4km N	Recorded	1	Explosion	Undetermined	N/K	17-Oct, 21:41
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 21:56
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 21:57
	2-4km N	Recorded	1	Projectile	SE to NW	N/K	17-Oct, 22:00
	2-4km N	Recorded	1	Projectile	SE to NW	N/K	17-Oct, 22:03
	2-4km N	Recorded	3	Projectile	SE to NW	N/K	17-Oct, 22:08
	2-4km N	Recorded	2	Projectile	SE to NW	N/K	17-Oct, 22:09
	2-4km N	Recorded	3	Projectile	SE to NW	N/K	17-Oct, 22:10
	2-4km N	Recorded	1	Projectile	SE to NW	N/K	17-Oct, 22:11
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	17-Oct, 22:13
	2-4km N	Recorded	1	Projectile	SE to NW	N/K	17-Oct, 22:21
	1-3km N	Recorded	1	Explosion	Airburst	N/K	17-Oct, 22:33
	2-4km N	Recorded	5	Projectile	ESE to WNW	N/K	17-Oct, 22:42
	2-4km N	Recorded	8	Projectile	ESE to WNW	N/K	17-Oct, 22:43
	2-4km N	Recorded	1	Projectile	WSW to ENE	N/K	17-Oct, 23:01
	2-4km N	Recorded	1	Muzzle flash		N/K	17-Oct, 23:02
	2-4km N	Recorded	1	Projectile	SW to NE (subsequent to previous event)	N/K	17-Oct, 23:02
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	18-Oct, 00:12
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	18-Oct, 00:14
	2-4km N	Recorded	1	Projectile	ESE to WNW	N/K	18-Oct, 00:34
Railway station in Yasynuvata (non-government-controlled, 16km NE of Donetsk)	4-6km NNW	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:38
	2-3km W	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:41
	3-5km SSE	Heard	10	Explosion	Undetermined	N/K	18-Oct, 12:48-12:59
	1-1.5km SW	Heard and saw	1	Explosion	Impact	N/K	18-Oct, 13:05
	2-3km W	Heard	1	Explosion	Undetermined	N/K	18-Oct, 13:06
	1-1.5km SW	Heard and saw	1	Explosion	Impact	N/K	18-Oct, 13:07
	2-5km SW	Heard	1	Explosion	Undetermined	N/K	18-Oct, 13:14
	1.5-2.5km SW	Heard	36	Shot		Small arms	18-Oct, 13:32-13:34
	1.5-2.5km SW	Heard	2	Burst		HMG	18-Oct, 13:34
	1.5-2.5km SW	Heard	27	Shot		Small arms	18-Oct, 13:45-13:48
	2-2.5km SW	Heard and saw	1	Explosion	Impact	N/K	18-Oct, 14:48
	1.5-2.5km SW	Heard	37	Shot		Small arms	18-Oct, 14:53
	2-2.5km SW	Heard and saw	1	Explosion	Impact	N/K	18-Oct, 14:56
Oleksandrivka (non-government-controlled, 20km SW of Donetsk)	3-4km ENE	Heard	5	Explosion	Undetermined	N/K	18-Oct, 11:00-11:07
	1-2km NW	Heard	5	Shot		Small arms	18-Oct, 11:15-11:23
Donetsk central railway station	3-4km W	Heard	2	Burst		HMG	18-Oct, 10:45

(non-government-controlled, 6km NW of Donetsk)							
About 6km WNW of the Donetsk city centre (non-government-controlled)	1-2km NW	Heard	63	Shot		Small arms	18-Oct, 13:30-13:40
	1-2km NW	Heard	3	Burst		HMG	18-Oct, 13:30-13:40
	1km NW	Heard	4	Burst		Small arms	18-Oct, 13:39
	3km N	Heard	1	Explosion	Undetermined	N/K	18-Oct, 14:48
	3-4km NNE	Heard	1	Explosion	Undetermined	N/K	18-Oct, 15:00
	4-5km N	Heard	1	Explosion	Undetermined	N/K	18-Oct, 15:03
About 1.8km SSE of Marinka (government-controlled, 23km SW of Donetsk)							
	2-3km NNE	Heard	6	Shot		Small arms	18-Oct, 11:10
Pervomaiske (government-controlled, 17km NW of Donetsk)	1-2km N	Heard	107	Shot		Small arms	18-Oct, 10:40-10:55
	1-2km N	Heard	77	Burst		Small arms	18-Oct, 10:40-10:55
	2-3km E	Heard	21	Shot		Small arms	18-Oct, 10:47-10:51
	2-3km E	Heard	11	Burst		Small arms	18-Oct, 10:47-10:51
	3-5km E	Heard	3	Explosion	Undetermined	N/K	18-Oct, 11:03
	4-6km E	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:07
N edge of Avdiivka (government-controlled, 17km N of Donetsk)	2-3km NE	Heard	3	Explosion	Undetermined	N/K	18-Oct, 10:20
	2-3km NE	Heard	1	Burst		HMG	18-Oct, 10:25
							18-Oct, 11:08-11:11
	3-5km S	Heard	5	Explosion	Undetermined	N/K	18-Oct, 11:08-11:11
	800m NNE	Heard	3	Burst		Small arms	18-Oct, 11:30
	2km W	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:40
	1km SSE	Heard	1	Shot		Small arms	18-Oct, 12:06
	3-5km SSE	Heard	5	Explosion	Undetermined	N/K	18-Oct, 12:29-12:33
	1km SSE	Heard	2	Shot		Small arms	18-Oct, 12:36
	2km SE	Heard	24	Burst		HMG	18-Oct, 12:40-12:43
	2km SE	Heard	17	Shot		Small arms	18-Oct, 12:40-12:43
2-3km SE	Heard	4	Explosion	Undetermined	N/K	18-Oct, 12:45-12:48	
About 1.8km N of Petrivske (non-government-controlled, 41km S of Donetsk)					Undetermined (assessed as outside the disengagement area)		
	2-3km SSE	Heard	3	Explosion		N/K	18-Oct, 13:00-13:02
	2-3km SSE	Heard	1	Shot	Assessed as outside the disengagement area	Small arms	18-Oct, 13:02
	2-3km SSE	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	18-Oct, 13:17
					Undetermined (assessed as outside the disengagement area)		
10-15km NW	Heard	1	Explosion		N/K	18-Oct, 13:28	

	10-15km NW	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	18-Oct, 14:29
2km NE of Chernenko (government-controlled, 86km S of Donetsk)	2-3km SE	Heard	10	Burst		HMG	18-Oct, 09:30-09:33
	2km E	Heard	5	Shot		Small arms	18-Oct, 09:37
	3km SE	Heard	5	Burst		HMG	18-Oct, 09:40-09:47
	1.5km E	Heard	4	Burst		Small arms	18-Oct, 09:40-09:47
	2km E	Heard	1	Shot		Small arms	18-Oct, 09:40-09:47
	2-3km SE	Heard	3	Burst		HMG	18-Oct, 09:52-09:56
	3km SE	Heard	10	Explosion	Undetermined	N/K	18-Oct, 09:58-10:10
	3km SE	Heard	60	Shot		AGL	18-Oct, 09:58-10:10
	3km SE	Heard	50	Burst		HMG	18-Oct, 09:58-10:10
	3km SE	Heard	100	Shot		Small arms	18-Oct, 09:58-10:10
	3km NE	Heard	6	Explosion	Outgoing	N/K	18-Oct, 10:11-10:15
	6-7km SE	Heard	6	Explosion	Impact	N/K	18-Oct, 10:11-10:15
	5km NE	Heard	5	Explosion	Undetermined	N/K	18-Oct, 10:11-10:15
	3km SE	Heard	5	Explosion	Impact	N/K	18-Oct, 10:11-10:15
	3-5km ENE	Heard	1	Explosion	Undetermined	N/K	18-Oct, 10:32
	8-10km NNE	Heard	18	Explosion	Undetermined	N/K	18-Oct, 10:42-10:49
	8-10km NNE	Heard	13	Explosion	Undetermined	N/K	18-Oct, 10:51-10:57
	3km SE	Heard	2	Explosion	Undetermined	N/K	18-Oct, 10:51-10:57
	8-10km NNE	Heard	2	Explosion	Undetermined	N/K	18-Oct, 10:58
	3km SE	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:10-11:15
	3km SE	Heard	1	Burst		Small arms	18-Oct, 11:10-11:15
	3km SE	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:20
	8-10km NNE	Heard	17	Explosion	Undetermined	N/K	18-Oct, 11:36-11:46
8-10km NNE	Heard	9	Explosion	Undetermined	N/K	18-Oct, 11:50-12:00	
About 2km SE of Lebedynske (government-controlled, 99km S of Donetsk)	3-5km N	Heard	25	Shot		Small arms	18-Oct, 09:57-10:08
	3-5km N	Heard	1	Explosion	Undetermined	N/K	18-Oct, 09:57-10:08
	3-5km N	Heard	10	Explosion	Undetermined	N/K	18-Oct, 10:09-10:13
	3-5km N	Heard		Shot	Uncountable	Small arms	18-Oct, 10:09-10:13
	3km NW	Heard	3	Explosion	Undetermined	N/K	18-Oct, 12:40-12:50
	3km NW	Heard	3	Explosion	Undetermined	N/K	18-Oct, 12:55-13:05
	3km NE	Heard	3	Explosion	Impact	N/K	18-Oct, 12:55-

							13:05
	5km NW	Heard	3	Explosion	Undetermined	N/K	18-Oct, 13:07-13:10
	3km NE	Heard	3	Explosion	Undetermined	N/K	18-Oct, 13:07-13:10
	2km NNE	Heard	1	Burst		HMG	18-Oct, 13:07
About 1km NE of Talakivka (government-controlled, 90km S of Donetsk)	1-3km E	Heard	56	Explosion	Undetermined	N/K	18-Oct, 09:55
	1-3km E	Heard	49	Shot		Small arms	18-Oct, 09:55
W of Pyshchevyk (government-controlled, 84km S of Donetsk)	3-4km NE	Heard	5	Explosion	Undetermined	N/K	18-Oct, 10:10-10:15
About 1km NNW of Pyshchevyk (government-controlled, 84km S of Donetsk)	N/K NNE	Heard	6	Explosion	Undetermined	N/K	18-Oct, 10:57-11:03
	N/K NNE	Heard	1	Burst		HMG	18-Oct, 11:09
	N/K NNE	Heard	10	Explosion	Undetermined	N/K	18-Oct, 11:36-11:46
About 2km NE of Bohdaniivka (government-controlled, 41km SW of Donetsk)	5-7km ESE	Heard	1	Explosion	Undetermined (assessed as outside the Petrivske disengagement area)	N/K	18-Oct, 13:02
	5-7km ESE	Heard	1	Explosion	Undetermined (assessed as outside the Petrivske disengagement area)	N/K	18-Oct, 13:20
About 2.6km SSE of Lomakyne (government-controlled, 93km S of Donetsk)	3-4km NE	Heard	7	Explosion	Undetermined	N/K	18-Oct, 13:32-13:45
	N/K E	Heard	1	Explosion	Undetermined	N/K	18-Oct, 13:32-13:45
	N/K E	Heard	1	Burst		Small arms	18-Oct, 13:32-13:45
Horlivka (non-government-controlled, 39km NE of Donetsk)	2-3km W	Heard	4	Burst		HMG	17-Oct, 19:51-19:53
	5-6km W	Heard	4	Explosion	Undetermined	N/K	17-Oct, 19:55-19:57
	4-5km W	Heard	9	Burst		HMG	17-Oct, 19:58
	3-4km WNW	Heard	8	Burst		HMG	17-Oct, 20:43
	4-5km WNW	Heard	3	Explosion	Undetermined	N/K	17-Oct, 20:53-20:55
	4-5km WSW	Heard	4	Explosion	Undetermined	N/K	17-Oct, 21:06-21:07
	3-4km WSW	Heard	20	Burst		HMG	17-Oct, 21:07-21:08
	3-4km SW	Heard	4	Burst		HMG	17-Oct, 21:10-21:13
	4-5km SW	Heard	3	Explosion	Undetermined	N/K	17-Oct, 21:10-21:13
	5-6km WSW	Heard	3	Explosion	Undetermined	N/K	17-Oct, 21:44
	5-6km SSW	Heard	4	Explosion	Undetermined	N/K	17-Oct, 23:19
N of Horlivka (non-government-controlled, 39 km NE of Donetsk)	3-5km WSW	Heard	1	Explosion	Undetermined	N/K	18-Oct, 10:40
About 5km NE of Horlivka (non-government)	1-2km SW	Heard	2	Burst		Cannon 30mm	18-Oct, 09:58
	2-3km NW	Heard	3	Burst		HMG	18-Oct, 10:49

controlled, 39km NE of Donetsk)							
Svitlodarsk (government-controlled, 57km NE of Donetsk)	3-4km S	Heard	1	Explosion	Undetermined	N/K	17-Oct, 21:16
	2-3km S	Heard	4	Burst		HMG	17-Oct, 21:19-21:24
	2-3km SE	Heard	4	Burst		Small arms	17-Oct, 22:38-22:40
	2-3km SE	Heard	3	Burst		Small arms	17-Oct, 22:52
	3-4km SE	Heard	1	Explosion	Undetermined	N/K	17-Oct, 23:35
	2-3km SE	Heard	7	Burst		Small arms	17-Oct, 23:45-23:55
W edge of Zalizne (government-controlled, 42km NE of Donetsk)	5-6km SSE	Heard	1	Explosion	Undetermined	N/K	18-Oct, 09:57
	3-5km SSE	Heard	1	Explosion	Undetermined	N/K	18-Oct, 10:39
	4-6km SSE	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:43
	5-6km SSE	Heard	1	Explosion	Undetermined	N/K	18-Oct, 12:25
	3-5km SSE	Heard	1	Explosion	Undetermined	N/K	18-Oct, 13:06
About 500m NE of Kamianka (government-controlled, 20km N of Donetsk)	5-6km SE	Heard	1	Explosion	Undetermined	N/K	18-Oct, 09:05
	2-3km SE	Heard	1	Burst		Small arms	18-Oct, 09:30
	2-3km E	Heard	1	Burst		HMG	18-Oct, 10:20
	5-6km SW	Heard	1	Explosion	Undetermined	N/K	18-Oct, 11:05
Krasnohorivka (government-controlled, 24km N of Donetsk)	2-3km SE	Heard	2	Explosion	Undetermined	N/K	18-Oct, 11:42
SMM camera in Zolote (government-controlled, 60km W of Luhansk)	1-2km E	Recorded	1	Projectile	NE to SW (assessed as outside the disengagement area)	N/K	17-Oct, 22:04
N edge of Popasna (government-controlled, 69km W of Luhansk)	6-8km SE	Heard	26	Explosion	Undetermined	N/K	17-Oct, 22:00-22:25
	6-8km SE	Heard	25	Burst		Small arms	17-Oct, 22:00-22:25
S edge of Popasna (government-controlled, 69km W of Luhansk)	3-6km ESE	Heard	29	Shot		BMP-2 cannon (30mm)	18-Oct, 11:00-11:30
	3-6km ESE	Heard	8	Shot and Burst		HMG	18-Oct, 11:00-11:30
	3-6km ESE	Heard	6	Shot		Small arms	18-Oct, 11:00-11:30
Kadiivka (formerly Stakhanov, non-government-controlled, 50km W of Luhansk)	10-12km W	Heard	8	Explosion	Undetermined	N/K	17-Oct, 22:35-22:40
	5-6km W	Heard	4	Burst		HMG	17-Oct, 22:35-22:40
	10-12km W	Heard	4	Explosion	Undetermined	N/K	17-Oct, 23:16-23:18
N edge of Pervomaisk (non-government-controlled, 58km W of Luhansk)	1-1.5km E	Heard	4	Burst	Assessed as outside the Zolote disengagement area	Small arms	18-Oct, 11:00
	4-6km SW	Heard	76	Explosion	Undetermined (assessed as outside the Zolote disengagement area)	N/K	18-Oct, 11:05-11:19
	4-6km SW	Heard	1	Explosion	Undetermined (assessed as outside the Zolote disengagement area)	N/K	18-Oct, 12:15

	4-6km SW	Heard	1	Explosion	Undetermined (assessed as outside the Zolote disengagement area)	N/K	18-Oct, 12:24
NE of Katerynivka (government-controlled, 64km W of Luhansk)	3-5km SSW	Heard	40	Explosion	Undetermined (assessed as outside the Zolote disengagement area)	N/K	18-Oct, 11:30-11:45
	3-5km SSW	Heard	3	Burst	Assessed as outside the Zolote disengagement area	Small arms	18-Oct, 11:30-11:45
	3-5km SSW	Heard	3	Explosion	Undetermined (assessed as outside the Zolote disengagement area)	N/K	18-Oct, 12:16-12:24
	2-3km NW	Heard	30	Shot		Small arms	18-Oct, 11:10-11:17
S edge of Kalynove (non-government-controlled, 60km W of Luhansk)	2-3km WNW	Heard	26	Shot		Small arms	18-Oct, 11:34-11:43
	4-6km W	Heard	1	Explosion	Undetermined	N/K	18-Oct, 11:44-11:45
	300m SW	Heard	1	Shot		Small arms	18-Oct, 13:17
N edge of Smile (non-government-controlled, 31km NW of Luhansk)							
Stanytsia Luhanska Bridge (15km NE of Luhansk)	2-3km ESE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	18-Oct, 14:11

Map of Donetsk and Luhansk regions¹¹



¹¹ 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: a forward patrol base from which SMM staff has temporarily relocated based on recommendations of security experts from participating States as well as SMM security considerations. The SMM uses the premises during daylight hours and patrols in this settlement during daylight hours, as well).