

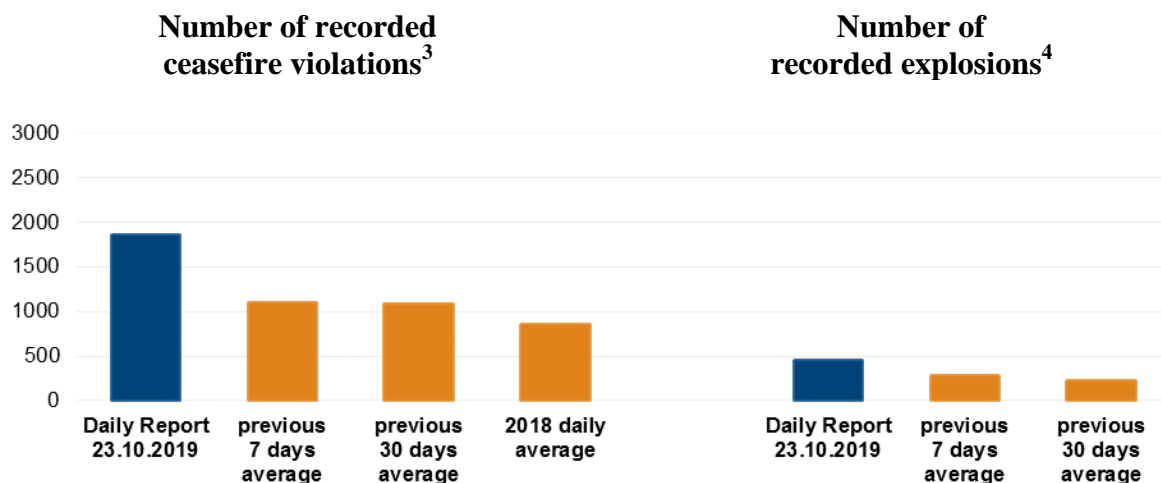
Daily Report 251/2019

23 October 2019¹

Summary

- Compared with the previous reporting period, the SMM recorded more ceasefire violations in Donetsk region and fewer in Luhansk region.
- Inside the Stanytsia Luhanska disengagement area, the SMM continued to observe reconstruction works of the broken section of the bridge.
- The Mission continued to observe the clearing of vegetation inside the disengagement area near Zolote. It saw military presence inside the disengagement areas near Petrivske and Zolote.
- The SMM saw for the first time anti-tank mines near Styla.
- The Mission observed weapons in violation of withdrawal lines in government- and non-government-controlled areas of Donetsk region.
- The SMM 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 border crossing point near and a railway station in non-government-controlled Voznesenivka.*

Ceasefire violations²



¹ Based on information from the Monitoring Teams as of 19:30, 22 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 camera at the Donetsk Filtration Station was not operational.

³ Including explosions.

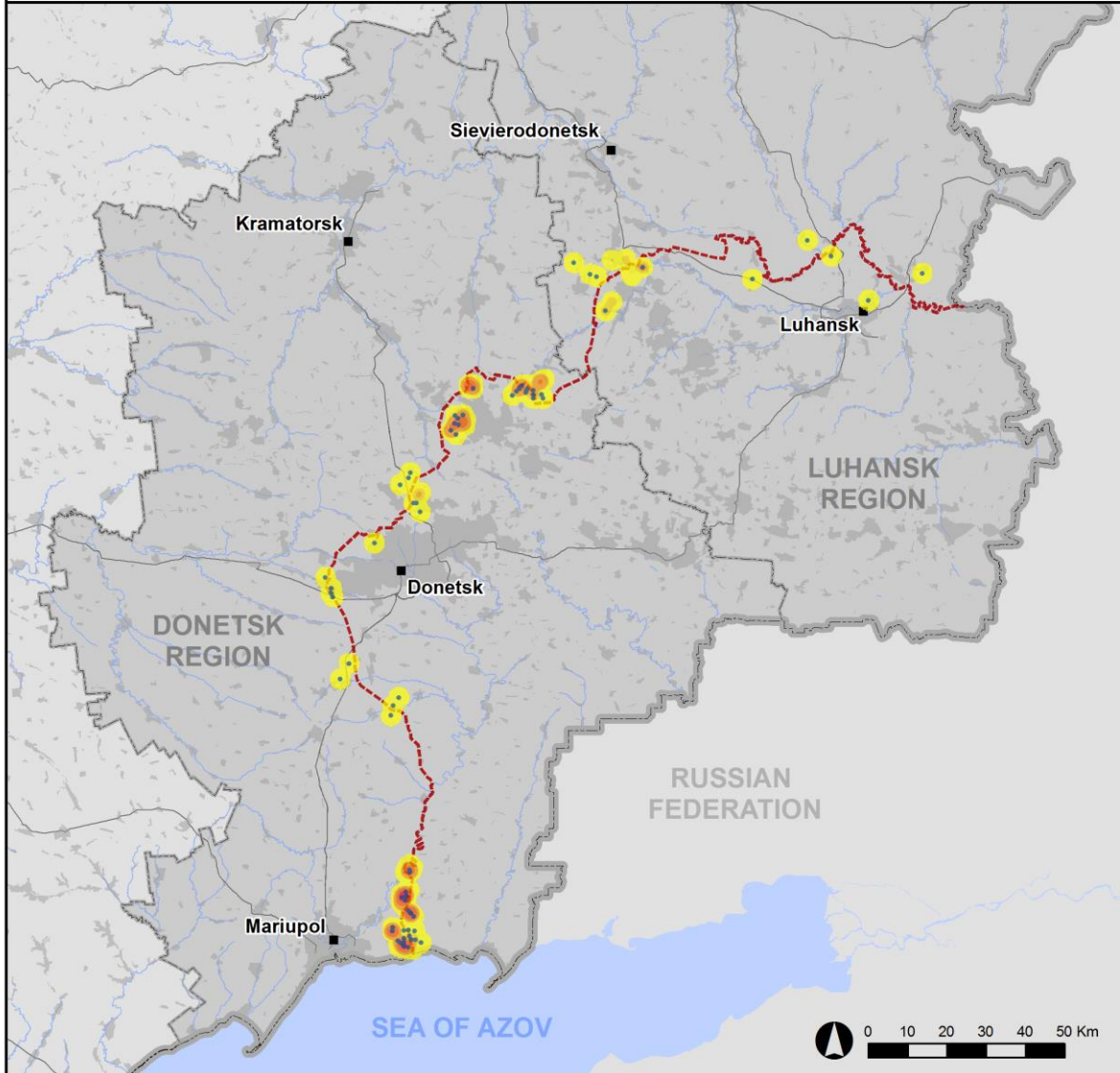
⁴ Including from unidentified weapons.

Map of recorded ceasefire violations



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

Ceasefire violations observed by the SMM 22 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: 23/10/2019

In Donetsk region, the SMM recorded more ceasefire violations, including more explosions (430), compared with [the previous reporting period](#) (about 80 explosions). The majority of ceasefire violations were recorded in areas south-east, south-south-east and south of Pyschchevyk (government-controlled, 84km south of Donetsk), in areas north, north-north-east and north-east of Shyrokyne (government-controlled, 100km south of Donetsk) and at westerly and northerly directions of Horlivka (non-government-controlled, 39km north-east of Donetsk).

In Luhansk region, the Mission recorded fewer ceasefire violations, including fewer explosions (23), compared with [the previous reporting period](#) (about 240 explosions). The majority of ceasefire violations were recorded in areas north-north-west of Berezhivske (non-government-controlled, 53km north-west of Luhansk), in areas south-south-west of Pervomaisk (non-government-controlled, 58km west of Luhansk) and in areas east-north-east and east of the disengagement area near Zolote (government-controlled, 60km west of Luhansk) (see below).

Disengagement areas near Stanytsia Luhanska, Zolote and Petrivske⁵

On 22 October, inside **the disengagement area near Stanytsia Luhanska** (government-controlled, 16km north-east of Luhansk), the SMM saw workers from government-controlled areas removing cut trees from the area 500m north of the broken section of the Stanytsia Luhanska bridge (15km north-east of Luhansk) and laying rebar and preparing metal rods in the area of the broken section of the bridge.

On the same day, the SMM saw workers from non-government-controlled areas accompanied by a member of the armed formations (wearing an armband with “JCCC” written on it) cutting trees and bushes south of the bridge. The Mission also saw at least seven members of the armed formations (wearing armbands with “JCCC” written on them) in the area between the broken section of the bridge and the checkpoint of the armed formations south of the bridge.

Inside the **disengagement area near Zolote**, on 18 October an SMM mini-unmanned aerial vehicle (UAV) spotted a crater in a field on the western side of road T-1319 about 700m south of the disengagement area’s northern edge. The SMM assessed it as fresh but was unable to assess the type of weapon used and the direction of fire. The UAV also spotted an infantry fighting vehicle (IFV) (BMP-2) near a residential house in Katerynivka (government-controlled, 64km west of Luhansk). On 19 October, an SMM mini-UAV spotted a person, assessed as a Ukrainian Armed Forces soldier, about 1.2km south of the disengagement area’s northern edge and about 1km east of its western edge.

On 22 October, the SMM saw 15 Ukrainian Armed Forces personnel clearing vegetation on the eastern side of road T-1316, up to about 750m south of the disengagement area’s northern edge. The Mission also saw an armed Ukrainian Armed Forces soldier in a trench on the eastern side of the road, around 900m south of the disengagement area’s northern edge.

Outside the disengagement area, an SMM mini-UAV spotted a trench digger (PZM-2) and a new 200m trench extension under construction (not seen in imagery from 12 October 2019) in a field about 170m north-west of the checkpoint of the Ukrainian Armed Forces on the

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

northern edge of the disengagement area. The trench was running north-north-west to south-south-east until about 10m north of the disengagement area's northern edge.

During the same day, outside the disengagement area, the SMM saw three Ukrainian Armed Forces personnel digging and reinforcing trenches west of road T-1316, around 80m north of the area's northern edge. The Mission also saw a surveillance camera and an external parabolic antenna, together with a power supply and a control box, assessed as belonging to the Ukrainian Armed Forces, installed on the same tower platform as the SMM camera in Zolote, about 2m above it.

On the evening of 21 October, the SMM camera in the southern part of the Zolote disengagement area recorded a projectile in vertical flight at an assessed range of 2-3km east and the SMM camera in Zolote recorded nine projectiles in flight at an assessed range of 2-4km east-north-east. On 22 October, positioned at three locations near the disengagement area the Mission heard an undetermined explosion and 13 shots and bursts of small-arms fire. All these ceasefire violations were assessed as outside the disengagement area but within its 5km periphery.

On 18 October, inside the **disengagement area near Petrivske** (non-government-controlled, 41km south of Donetsk), an SMM mid-range UAV [again](#) spotted about 120 anti-tank mines running north to south in two rows about 1km east of its western edge, starting at about 700m south of the area's northern edge, assessed as belonging to the Ukrainian Armed Forces. The UAV also spotted in total 12 people, assessed as Ukrainian Armed Forces personnel, in three previously observed positions – two about 700m and about 2km east of the disengagement area's western edge (both about 500m south of its northern edge), and a third position about 580m south of the latter.

Outside the disengagement area, on 21 October, an SMM mini-UAV [again](#) spotted 54 anti-tank mines laid across the road between Bohdanivka (government-controlled, 41km south-west of Donetsk) and Viktorivka (non-government-controlled, 42km south-west of Donetsk) about 160m north of the disengagement area's northern edge, all assessed as belonging to the Ukrainian Armed Forces.

The same UAV also spotted 11 personnel of the Ukrainian Armed Forces erecting a camera mast on the northern edge of the said road about 270m west-north-west of the disengagement area's north-western corner.

During the day on 22 October, positioned about 2km north of Petrivske, the SMM heard an undetermined explosion at an assessed range of 5-8km west, 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, one on each side of the contact line. It also observed 14 weapons beyond withdrawal lines but outside of designated storage sites in non-government-controlled areas of Donetsk and Luhansk regions (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 in the security zone on both sides of the contact line, including armoured personal carriers, an infantry fighting vehicle, and an anti-aircraft gun, (for more details, see the table below).

Anti-tank mines observed near Styla; unexploded ordnance (UXO) no longer present near Molodizhne

On 18 October, an SMM mid-range UAV spotted for the first time about 140 anti-tank mines laid in two groups (two rows each), one about 5km west-south-west and the other about 4.6km south-south-west of Styla (non-government-controlled, 34km south of Donetsk). These mines were assessed as belonging to the armed formations.

The SMM saw that a [previously reported](#) object (assessed as a 120mm mortar tailfin) embedded in a crater on road T-0504, about 130m east of a checkpoint of the armed formations 1.5km south-west of Molodizhne (non-government-controlled, 63km north-west of Luhansk) was no longer present.

SMM facilitation of operation of and repairs 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 drilling of wells near Raiivka (non-government-controlled, 16km north-west of Luhansk); and an inspection and maintenance of powerlines near Pankivka (non-government-controlled, 16km north 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 an explosion at an assessed distance of 800m west-north-west, assessed an impact within the 1.5km periphery of the DFS.

The SMM also continued to monitor the security situation in the area of the pumping station near Vasylivka (non-government-controlled, 20km north of Donetsk).

Border areas outside government control

On the night of 21-22 October, an SMM long-range UAV spotted an SUV about 3.5km north-east of Manych (non-government-controlled, 76km east of Donetsk) close to the border with the Russian Federation, driving on an unpaved road from the direction of Manych towards the border in an area where there are no border crossing facilities. About 40 minutes later, the same UAV spotted a mini-bus at the same location at the border driving towards Manych on the same unpaved road.

While at a border crossing point near Uspenka (73km south-east of Donetsk) for about 75 minutes, the SMM saw 22 cars (two with Ukrainian and seven with Russian Federation licence plates, and 13 with “DPR” plates), seven covered cargo trucks (three with Ukrainian

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

and two with Russian Federation licence plates, and two with “DPR” plates), two buses (one with Russian Federation licence plates and one with “DPR” plates) and 15 pedestrians (four women and 11 men) entering Ukraine. During the same time, it also saw 31 cars (five with Ukrainian, 15 with Russian Federation, one with Polish and one with Georgian licence plates, and nine with “DPR” plates), nine covered cargo trucks (four with Ukrainian and three with Russian Federation licence plates, and two with “DPR” plates), one bus with “DPR” plates, and 12 pedestrians (six women and six men) exiting Ukraine.

While at a border crossing point near Ulianivske (61km south-east of Donetsk) for 15 minutes, the Mission saw a woman (in her fifties) entering Ukraine and a woman (in her fifties) exiting Ukraine.

Upon arrival at a border crossing point near Voznesenivka (formerly Chervonopartyzansk, 65km south-east of Luhansk), a member of the armed formations told the SMM to leave the area.* While present, the SMM saw a bus with Ukrainian licence plates exiting Ukraine and two cars (one with Ukrainian and one with Georgian licence plates) queuing to exit Ukraine.

Upon arrival at the Chervona Mohyla railway station in Voznesenivka, a member of the armed formations told the SMM to leave the area.*

Cargo train in non-government-controlled areas

On 21 October, near Kuteinykove (non-government-controlled, 42km south-east of Donetsk) an SMM long-range UAV spotted a cargo train pulling 50 empty coal wagons, moving towards Kuteinykove from the direction of Ilovaisk (non-government-controlled, 30km south-east of Donetsk).

Population survey in non-government-controlled areas of Donetsk

On 21 and 22 October, eight people from multiple locations in non-government-controlled areas of Donetsk region told the SMM that they had participated in a population survey between 1 and 14 October. In two settlements, people, who said they were carrying out the survey, told the Mission that between 18 and 24 October they would re-visit houses of residents who had not been at home and had not taken the survey before.

SMM monitored the security situation in south-east Kherson region

On 21 and 22 October, the Mission observed a calm situation along the Sea of Azov coast in Kherson region and at the checkpoint between Chonhar (163km south-east of Kherson) and Crimea.

The SMM continued monitoring in 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 below). 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.

Denials of access:

- At a border crossing point near Voznesenivka (formerly Chervonopartyzansk, non-government-controlled, 65km south-east of Luhansk), a member of the armed formations [again](#) told the SMM to leave the area.
- At the Chervona Mohyla railway station in Voznesenivka, a member of the armed formations told the SMM to leave the area.

Conditional access:

- At a checkpoint near Kreminets (non-government-controlled, 16km south-west of Donetsk), an armed member of the armed formations [again](#) insisted on inspecting an SMM trailer as a condition of passing the checkpoint. After a brief visual inspection, the SMM was allowed to proceed.

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 21 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). The same UAV also experienced dual GPS signal interference, assessed as due to jamming, while flying between Avdiivka (government-controlled, 17km north of Donetsk) and Donetsk city (non-government-controlled).⁷
- On 22 October, an SMM mini-UAV experienced signal interference, assessed as due to probable jamming, while flying on the western edge of Petrivske (non-government-controlled, 41km south of Donetsk).
- On 22 October, an SMM mini-UAV experienced signal interference, assessed as due to probable jamming, on two occasions, while flying near Lebedynske (government-controlled, 99km south of Donetsk).

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
Government-controlled areas				
22/10/2019	1	Surface-to-air missile system (9K33 <i>Osa</i>)	In Kodema (57km north-east of Donetsk)	Patrol
Non-government-controlled areas				
21/10/2019	1	Surface-to-air missile system (9K33 <i>Osa</i>)	Near Korsun (31km north-east of Donetsk)	Long-range UAV

Beyond withdrawal lines but outside of designated storage sites

Date	No.	Type	Location	Source of observation
Non-government-controlled areas				
19/10/2019	1	Tank (T-72B)	Inside a compound on the eastern outskirts of Perevalsk (38km west of Luhansk)	Mini UAV
21/10/2019	3	Towed howitzer (D-30 <i>Lyagushka</i> , 122mm)	In a training area near Pokrovka (36km east of Donetsk)	Long-range UAV
	10	Tank (T-72)		

Table of indications of military presence and military-type in the security zone⁸

Date	No.	Type	Location	Source of observation
Government-controlled areas				
18/10/2019	1	Armoured combat vehicle	Near Bohdanivka (41km south-west of Donetsk) (in areas near the disengagement area near Petrivske)	Mid-range UAV
	3	Infantry fighting vehicle (IFV) (BMP-2)		
21/10/2019	7	Armoured personnel carrier (BTR-70)	Near Heivka (27km north-west of Luhansk)	Mini UAV
	1	Mine layer (GMZ-3)		
	2	Infantry fighting vehicle (BMP-2)		
22/10/2019	1	Anti-aircraft gun (ZU-23, 23mm)	In Kodema (57km north-east of Donetsk)	Patrol
	1	Armoured personnel carrier (KrAZ Cougar) with a heavy machine gun	Near Shchastia (20km north of Luhansk)	
Non-government-controlled areas				
21/10/2019	1	Firing position reinforced with sandbags (not visible in the imagery from 12 September 2019)	On T-0504 road, about 2.5km south-west of Molodizhne (63km north-west of Luhansk)	Mini UAV

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

Table of ceasefire violations as of 22 October 2019⁹

SMM position	Event location	Means	No.	Observation	Description	Weapon	Date, time
SMM camera in Berezove (government-controlled, 31km SW of Donetsk)	1-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 22:34
	1-3km SSE	Recorded	1	Explosion	Airburst (subsequent to previous event)	N/K	21-Oct, 22:34
	1-3km SSE	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 23:50
SMM camera in Chermalyk (government-controlled, 77km S of Donetsk)	2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 19:39
	2-3km S	Recorded	7	Projectile	ENE to WSW	N/K	21-Oct, 20:31
	2-3km SE	Recorded	4	Projectile	ENE to WSW	N/K	21-Oct, 20:54
	2-3km SSE	Recorded	1	Projectile	ENE to WSW	N/K	21-Oct, 20:56
	2-3km SSE	Recorded	1	Projectile	ENE to WSW	N/K	21-Oct, 20:59
	2-3km SSE	Recorded	3	Projectile	WSW to ENE	N/K	21-Oct, 21:02
	2-4km SSE	Recorded	38	Projectile	WSW to ENE	N/K	21-Oct, 21:03
	2-4km SSE	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:03
	2-4km SSE	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 21:03
	2-4km SSE	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:04
	2-3km SSE	Recorded	39	Projectile	WSW to ENE	N/K	21-Oct, 21:07
	2-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 21:07
	2-3km SSE	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	21-Oct, 21:07
	2-3km SSE	Recorded	1	Projectile	ENE to WSW	N/K	21-Oct, 21:08
	2-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 21:09
	2-3km SSE	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 21:09
	2-3km SSE	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	21-Oct, 21:09
	2-3km SSE	Recorded	1	Projectile	ENE to WSW	N/K	21-Oct, 21:14
	2-3km SSE	Recorded	1	Muzzle flash		N/K	21-Oct, 21:15
	2-3km SSE	Recorded	1	Projectile	WSW to ENE (subsequent to previous event)	N/K	21-Oct, 21:15
	2-3km SSE	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	21-Oct, 21:15
	2-3km SSE	Recorded	1	Projectile	ENE to WSW	N/K	21-Oct, 21:24
	2-3km SSE	Recorded	1	Projectile	ENE to WSW	N/K	21-Oct, 21:24
	2-3km SSE	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	21-Oct, 21:24
	2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 21:38
	2-4km S	Recorded	3	Projectile	WSW to ENE	N/K	21-Oct, 22:18
	1-2km SE	Recorded	1	Muzzle flash		N/K	21-Oct, 22:24
	1-2km SSE	Recorded	1	Projectile	ESE to WNW (subsequent to previous event)	N/K	21-Oct, 22:24
SMM camera 1.5km NE of Hnutove (government-	2-4km ESE	Recorded	2	Projectile	S to N	N/K	21-Oct, 19:03
	2-4km ESE	Recorded	2	Projectile	S to N	N/K	21-Oct, 19:26
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 19:26

⁹ 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.

controlled, 90km S of Donetsk)	2-4km ENE	Recorded	1	Explosion	Undetermined (also recorded by the SMM camera in Chermalyk)	N/K	21-Oct, 19:39
	2-4km E	Recorded	1	Muzzle flash		N/K	21-Oct, 21:02
	2-4km E	Recorded	1	Projectile	S to N (subsequent to previous event)	N/K	21-Oct, 21:02
	3-5km ENE	Recorded	4	Projectile	N to S	N/K	21-Oct, 21:02
	2-4km E	Recorded	1	Muzzle flash		N/K	21-Oct, 21:08
	2-4km E	Recorded	1	Projectile	N to S (subsequent to previous event)	N/K	21-Oct, 21:08
	2-4km E	Recorded	2	Muzzle flash		N/K	21-Oct, 21:27
	2-4km E	Recorded	2	Projectile	N to S (subsequent to previous event)	N/K	21-Oct, 21:27
	2-4km E	Recorded	2	Explosion	Impact (subsequent to previous event)	N/K	21-Oct, 21:27
	2-4km E	Recorded	2	Explosion	Airburst	N/K	21-Oct, 21:32
	2-4km E	Recorded	1	Muzzle flash		N/K	21-Oct, 21:38
	2-4km E	Recorded	1	Projectile	N to S (subsequent to previous event)	N/K	21-Oct, 21:38
	2-4km E	Recorded	1	Explosion	Impact (subsequent to previous event)	N/K	21-Oct, 21:38
	2-4km E	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:42
SMM camera at entry-exit checkpoint in Maiorsk (government-controlled, 45km NE of Donetsk)	2-4km ENE	Recorded	1	Illumination flare	In vertical flight	N/K	21-Oct, 20:11
	1-3km ENE	Recorded	4	Projectile	NW to SE	N/K	21-Oct, 22:26
	1-3km ENE	Recorded	1	Projectile	SW to NE	N/K	21-Oct, 22:26
	1-3km ENE	Recorded	10	Projectile	SSW to NNE	N/K	21-Oct, 22:33
	1-3km ENE	Recorded	1	Projectile	NNW to SSE	N/K	21-Oct, 22:33
	1-3km ENE	Recorded	3	Projectile	N to S	N/K	21-Oct, 22:34
	1-3km ENE	Recorded	5	Projectile	SSW to NNE	N/K	21-Oct, 22:47
	1-3km ENE	Recorded	2	Projectile	NW to SE	N/K	21-Oct, 23:17
	1-3km ENE	Recorded	3	Projectile	NNW to SSE	N/K	21-Oct, 23:17
	1-3km ENE	Recorded	4	Projectile	SSW to NNE	N/K	21-Oct, 23:21
	1-3km ENE	Recorded	4	Projectile	SSW to NNE	N/K	21-Oct, 23:22
	1-3km ENE	Recorded	7	Projectile	NNW to SSE	N/K	21-Oct, 23:23
	1-3km ENE	Recorded	8	Projectile	N to S	N/K	21-Oct, 23:23
	1-3km ENE	Recorded	1	Projectile	SW to NE	N/K	21-Oct, 23:23
	1-3km ENE	Recorded	1	Projectile	S to N	N/K	21-Oct, 23:23
	1-3km ENE	Recorded	1	Projectile	NNW to SSE	N/K	21-Oct, 23:30
	1-3km ENE	Recorded	1	Projectile	SW to NE	N/K	21-Oct, 23:34
	1-3km ENE	Recorded	1	Projectile	WNW to ESE	N/K	21-Oct, 23:34
	1-3km ENE	Recorded	30	Projectile	NNW to SSE	N/K	22-Oct, 00:11
	1-3km ENE	Recorded	7	Projectile	NNW to SSE	N/K	22-Oct, 00:12
	1-3km ENE	Recorded	1	Projectile	NNW to SSE	N/K	22-Oct, 00:13
	1-3km E	Recorded	1	Projectile	NNW to SSE	N/K	22-Oct, 00:19
	2-4km ENE	Recorded	12	Projectile	S to N	N/K	22-Oct, 01:03
	2-4km E	Recorded	7	Projectile	N to S	N/K	22-Oct, 01:04
	1-3km ENE	Recorded	1	Projectile	NNW to SSE	N/K	22-Oct, 01:08
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	22-Oct, 01:09
	1-3km ENE	Recorded	1	Projectile	N to S	N/K	22-Oct, 01:09
	1-3km ENE	Recorded	1	Projectile	SW to NE	N/K	22-Oct, 01:11
	1-3km ENE	Recorded	2	Projectile	N to S	N/K	22-Oct, 01:12
	1-3km ENE	Recorded	2	Projectile	WNW to ESE	N/K	22-Oct, 01:12
	2-4km ENE	Recorded	4	Projectile	S to N	N/K	22-Oct, 01:18
	2-4km E	Recorded	2	Projectile	NW to SE	N/K	22-Oct, 01:51
	2-4km E	Recorded	10	Projectile	NW to SE	N/K	22-Oct, 01:53
	2-4km E	Recorded	5	Projectile	N to S	N/K	22-Oct, 02:03
2-4km E	Recorded	1	Projectile	In vertical flight	N/K	22-Oct, 02:04	
2-4km E	Recorded	9	Projectile	N to S	N/K	22-Oct, 02:05	

SMM camera at entry-exit checkpoint in Pyshchevyk (government-controlled, 84km S of Donetsk)	1-3km ENE	Recorded	1	Projectile	NNW to SSE	N/K	22-Oct, 02:28
	1-3km ENE	Recorded	1	Projectile	NNW to SSE	N/K	22-Oct, 02:41
	1-3km E	Recorded	1	Projectile	N to S	N/K	22-Oct, 03:40
	1-3km E	Recorded	1	Projectile	N to S	N/K	22-Oct, 03:44
	1-2km SSE	Recorded	4	Projectile	NE to SW	N/K	21-Oct, 18:42
	1-2km S	Recorded	2	Projectile	NW to SE	N/K	21-Oct, 19:03
	1-2km SSE	Recorded	2	Projectile	NW to SE	N/K	21-Oct, 19:26
	2-3km SSE	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 19:26
	1-3km S	Recorded	1	Projectile	NW to SE	N/K	21-Oct, 20:15
	1-3km S	Recorded	2	Projectile	NW to SE	N/K	21-Oct, 20:43
	1-3km S	Recorded	1	Projectile	NW to SE	N/K	21-Oct, 20:44
	1-3km SSE	Recorded	3	Muzzle flash		N/K	21-Oct, 20:44
	1-3km SSE	Recorded	7	Projectile	NE to SW	N/K	21-Oct, 20:47
	2-3km SSE	Recorded	1	Explosion	Airburst	N/K	21-Oct, 20:47
	1-3km S	Recorded	3	Projectile	NE to SW	N/K	21-Oct, 20:52
	2-3km S	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 20:58
	1-3km SSE	Recorded	1	Projectile	NE to SW	N/K	21-Oct, 20:59
	1-3km S	Recorded	1	Projectile	W to E	N/K	21-Oct, 20:59
	1-3km SSE	Recorded	14	Projectile	NW to SE	N/K	21-Oct, 21:01
	1-3km SSE	Recorded	100	Projectile	NW to SE (also recorded by the SMM cameras in Hnutove and Lomakyne)	N/K	21-Oct, 21:03
	2-3km SSE	Recorded	1	Explosion	Undetermined (also recorded by the SMM cameras in Hnutove and Lomakyne)	N/K	21-Oct, 21:04
	1-3km SSE	Recorded	47	Projectile	W to E (also recorded by the SMM camera in Hnutove)	N/K	21-Oct, 21:07
	2-3km SSE	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 21:09
	1-3km SSE	Recorded	4	Projectile	W to E	N/K	21-Oct, 21:09
	1-3km SSE	Recorded	1	Muzzle flash	Also recorded by the SMM camera in Hnutove	N/K	21-Oct, 21:15
	1-3km SSE	Recorded	1	Projectile	W to E (subsequent to previous event; also recorded by the SMM camera in Hnutove)	N/K	21-Oct, 21:15
	2-3km SSE	Recorded	1	Explosion	Impact (subsequent to previous event; also recorded by the SMM camera in Hnutove)	N/K	21-Oct, 21:15
	1-3km SSE	Recorded	1	Muzzle flash	Also recorded by the SMM camera in Hnutove	N/K	21-Oct, 21:17
	1-3km SSE	Recorded	1	Projectile	W to E (subsequent to previous event; also recorded by the SMM camera in Hnutove)	N/K	21-Oct, 21:17
	1-3km S	Recorded	4	Projectile	W to E	N/K	21-Oct, 21:20
	1-3km S	Recorded	9	Projectile	W to E	N/K	21-Oct, 21:22
	1-3km S	Recorded	2	Projectile	E to W	N/K	21-Oct, 21:23
	2-3km SSE	Recorded	1	Explosion	Airburst	N/K	21-Oct, 21:25
	1-3km S	Recorded	1	Projectile	W to E	N/K	21-Oct, 21:27

	1-3km SSE	Recorded	1	Muzzle flash		N/K	21-Oct, 21:36
	1-3km SSE	Recorded	1	Projectile	W to E (subsequent to previous event)	N/K	21-Oct, 21:36
	1-3km SSE	Recorded	1	Muzzle flash		N/K	21-Oct, 21:38
	1-3km SSE	Recorded	1	Projectile	W to E (subsequent to previous event)	N/K	21-Oct, 21:38
	1-3km S	Recorded	2	Projectile	E to W	N/K	21-Oct, 21:41
	1-3km S	Recorded	16	Muzzle flash		N/K	21-Oct, 21:47
	1-3km S	Recorded	1	Muzzle flash		N/K	21-Oct, 21:47
	1-3km S	Recorded	1	Projectile	W to E (subsequent to previous event)	N/K	21-Oct, 21:47
	1-3km S	Recorded	3	Projectile	W to E	N/K	21-Oct, 22:23
	1-3km S	Recorded	1	Projectile	E to W	N/K	21-Oct, 22:23
	1-3km SSE	Recorded	2	Projectile	W to E	N/K	21-Oct, 22:36
	1-3km SSE	Recorded	3	Projectile	W to E	N/K	21-Oct, 22:40
	1-3km SSE	Recorded	6	Projectile	W to E	N/K	21-Oct, 22:41
	1-3km SSE	Recorded	12	Projectile	W to E	N/K	21-Oct, 22:50
	1-3km S	Recorded	1	Projectile	W to E	N/K	21-Oct, 23:33
	1-3km SSE	Recorded	1	Projectile	W to E	N/K	21-Oct, 23:57
	1-3km SSE	Recorded	1	Projectile	N to S	N/K	21-Oct, 23:57
	2-4km S	Recorded	14	Projectile	W to E	N/K	21-Oct, 23:59
	2-4km S	Recorded	20	Projectile	W to E	N/K	22-Oct, 00:00
	2-4km S	Recorded	1	Projectile	In vertical flight	N/K	22-Oct, 00:00
	2-4km S	Recorded	7	Projectile	W to E	N/K	22-Oct, 00:30
	2-4km S	Recorded	1	Muzzle flash		N/K	22-Oct, 00:50
	2-4km S	Recorded	3	Projectile	WNW to ESE	N/K	22-Oct, 00:51
	2-4km S	Recorded	3	Projectile	W to E	N/K	22-Oct, 00:52
	2-4km SSE	Recorded	1	Projectile	NW to SE	N/K	22-Oct, 00:55
	2-4km S	Recorded	1	Projectile	W to E	N/K	22-Oct, 00:55
	2-4km S	Recorded	3	Projectile	W to E	N/K	22-Oct, 00:56
	2-4km S	Recorded	3	Projectile	W to E	N/K	22-Oct, 00:57
	2-4km S	Recorded	7	Projectile	W to E	N/K	22-Oct, 01:06
	2-4km S	Recorded	11	Projectile	W to E	N/K	22-Oct, 01:07
	2-4km S	Recorded	2	Projectile	W to E	N/K	22-Oct, 01:13
	2-4km S	Recorded	1	Projectile	W to E	N/K	22-Oct, 01:14
	2-4km S	Recorded	9	Projectile	NE to SW	N/K	22-Oct, 01:29
	3-5km S	Recorded	36	Projectile	WNW to ESE	N/K	22-Oct, 01:45
	3-5km S	Recorded	3	Projectile	W to E	N/K	22-Oct, 02:19
SMM camera 1km SW of Shyrokyne (government- controlled, 100km S of Donetsk)	2-4km N	Recorded	7	Projectile	W to E	N/K	21-Oct, 18:30
	2-4km N	Recorded	4	Projectile	W to E	N/K	21-Oct, 18:32
	2-4km N	Recorded	5	Projectile	W to E	N/K	21-Oct, 18:35
	2-4km N	Recorded	3	Projectile	W to E	N/K	21-Oct, 18:36
	2-4km NNE	Recorded	21	Projectile	W to E	N/K	21-Oct, 18:37
	2-4km N	Recorded	1	Projectile	SSE to NNW	N/K	21-Oct, 19:04
	2-4km N	Recorded	7	Projectile	W to E	N/K	21-Oct, 19:19
	2-4km NE	Recorded	2	Projectile	ESE to WNW	N/K	21-Oct, 19:24
	2-4km N	Recorded	2	Projectile	W to E	N/K	21-Oct, 19:26
	2-4km N	Recorded	1	Projectile	W to E	N/K	21-Oct, 19:28
	2-4km N	Recorded	2	Projectile	W to E	N/K	21-Oct, 19:29
	2-4km N	Recorded	6	Projectile	W to E	N/K	21-Oct, 19:46
	2-4km N	Recorded	1	Projectile	W to E	N/K	21-Oct, 20:15
	2-4km NNE	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 20:15
	2-4km NNE	Recorded	3	Projectile	ESE to WNW	N/K	21-Oct, 20:16
	2-4km NNE	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 20:17
	2-4km NNE	Recorded	2	Muzzle flash		N/K	21-Oct, 20:17
	2-4km N	Recorded	7	Projectile	W to E	N/K	21-Oct, 20:34
	2-4km N	Recorded	6	Projectile	WSW to ENE	N/K	21-Oct, 20:35
	2-4km N	Recorded	3	Muzzle flash		N/K	21-Oct, 20:41

	2-4km N	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 20:49
	2-4km N	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 20:59
	2-4km N	Recorded	8	Projectile	ESE to WNW	N/K	21-Oct, 21:00
	2-4km N	Recorded	7	Projectile	W to E	N/K	21-Oct, 21:02
	2-4km N	Recorded	15	Projectile	W to E	N/K	21-Oct, 21:03
	2-4km N	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:03
	2-4km N	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:04
	2-4km NNE	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 21:04
	2-4km NNE	Recorded	3	Projectile	SSE to NNW	N/K	21-Oct, 21:05
	2-4km N	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:05
	2-4km N	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 21:06
	2-4km N	Recorded	23	Projectile	W to E	N/K	21-Oct, 21:07
	2-4km N	Recorded	3	Explosion	Undetermined	N/K	21-Oct, 21:07
	2-4km N	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 21:14
	2-4km N	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 21:15
	2-4km N	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:15
	6-8km N	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 21:16
	2-4km N	Recorded	2	Projectile	W to E	N/K	21-Oct, 21:17
	2-4km N	Recorded	1	Projectile	In vertical flight	N/K	21-Oct, 21:17
	2-4km N	Recorded	2	Explosion	Undetermined	N/K	21-Oct, 21:17
	2-4km N	Recorded	8	Projectile	WSW to ENE	N/K	21-Oct, 21:18
	2-4km N	Recorded	4	Projectile	WSW to ENE	N/K	21-Oct, 21:20
	2-4km N	Recorded	5	Projectile	W to E	N/K	21-Oct, 21:21
	3-5km N	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 21:21
	2-4km N	Recorded	1	Burst	SW to NE (approximately 15 rounds)	N/K	21-Oct, 21:21
	2-4km NNW	Recorded	7	Projectile	W to E	N/K	21-Oct, 21:22
	2-4km N	Recorded	4	Projectile	W to E	N/K	21-Oct, 21:22
	2-4km N	Recorded	1	Muzzle flash		N/K	21-Oct, 21:23
	2-4km N	Recorded	1	Projectile	ESE to WNW (subsequent to previous event)	N/K	21-Oct, 21:23
	2-4km N	Recorded	3	Projectile	ESE to WNW	N/K	21-Oct, 21:23
	2-4km N	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 21:23
	4-6km N	Recorded	1	Explosion	Undetermined	N/K	21-Oct, 21:24
	3-4km N	Recorded	2	Projectile	WSW to ENE	N/K	21-Oct, 21:25
	3-4km N	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 21:26
	3-4km N	Recorded	4	Projectile	WSW to ENE	N/K	21-Oct, 21:27
	3-4km N	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 21:27
	3-4km N	Recorded	2	Projectile	WSW to ENE	N/K	21-Oct, 21:28
	2-3km NNE	Recorded	1	Projectile	SE to NW	N/K	21-Oct, 21:47
	3-4km N	Recorded	1	Projectile	WSW to ENE	N/K	21-Oct, 22:18
	3-4km NNE	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 22:23
	3-4km NNE	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 22:23
	3-4km N	Recorded	1	Projectile	SE to NW	N/K	21-Oct, 22:30
	3-4km N	Recorded	1	Projectile	ESE to WNW	N/K	21-Oct, 22:36
	3-5km N	Recorded	4	Projectile	W to E	N/K	21-Oct, 22:47
	3-4km N	Recorded	3	Projectile	SW to NE	N/K	21-Oct, 23:34
	3-4km N	Recorded	5	Projectile	WSW to ENE	N/K	21-Oct, 23:34
	3-5km N	Recorded	1	Illumination flare	In vertical flight	N/K	22-Oct, 01:18
	2-4km N	Recorded	2	Projectile	WSW to ENE	N/K	22-Oct, 01:21
	4-6km NNE	Recorded	1	Explosion	Undetermined	N/K	22-Oct, 18:20
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	22-Oct, 18:20
	2-4km N	Recorded	1	Projectile	WNW to ESE	N/K	22-Oct, 18:21
	2-4km N	Recorded	2	Projectile	WNW to ESE	N/K	22-Oct, 18:24
SMM camera in Svitlodarsk (government-controlled, 57km NE	2-4km ESE	Recorded	3	Projectile	NNW to SSE	N/K	21-Oct, 21:33

of Donetsk)							
Avdiivka (government-controlled, 17km N of Donetsk)	5-6km NNE	Heard	4	Explosion	Undetermined	N/K	22-Oct, 14:32-14:42
S part of Krasnohorivka (government-controlled, 21km W of Donetsk)	3-4km S	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:58
About 1km E of Kruta Balka (non-government-controlled, 16km N of Donetsk)	3-4km S	Heard	1	Explosion	Undetermined	N/K	22-Oct, 11:09
	1-2km N	Heard	4	Shot		Small arms	22-Oct, 11:10
	1-2km N	Heard	2	Shot		Small arms	22-Oct, 11:12
	1-2km N	Heard	1	Shot		Small arms	22-Oct, 11:14
	6-8km NNW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 11:41
	1km NW	Heard	10	Burst		Small arms	22-Oct, 11:44
About 2km SSE of Marinka (government-controlled, 23km SW of Donetsk)	2-3km ESE	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:05
	2-3km ESE	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:11
	2-3km ESE	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:16
	2-3km ESE	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:21
	1.5-2km E	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:25
	1.5-2km E	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:31
About 1.8km N of Petrivske (non-government-controlled, 41km S of Donetsk)	5-8km W	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	22-Oct, 11:27
	5-8km NW	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	22-Oct, 12:08
	5-8km WNW	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	22-Oct, 14:10
Donetsk city's Petrovskiyi district (non-government-controlled, 15km SW of Donetsk city centre)	1-2km SW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 11:55
	1-2km SW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:06
	1-2km SW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:12
	1-2km SW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:17
	1-2km SW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:22
	1-2km SW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:27
About 2.7km SW of Vesele (non-government-controlled, 9km NW of Donetsk)	1-2km W	Heard	1	Explosion	Undetermined	N/K	22-Oct, 13:40
SW part of Yasynuvata (non-government-controlled, 16km NE of Donetsk)	2km NW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 14:08
About 1km NW of the railway station in Yasynuvata (non-government-controlled, 16km NE of Donetsk)	800m WSW	Heard and saw	1	Explosion	Impact	Mortar (82mm)	22-Oct, 13:56
	6-8km NW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 14:32
N part of Sakhanka (non-government-	2-3km WNW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 13:28-13:41

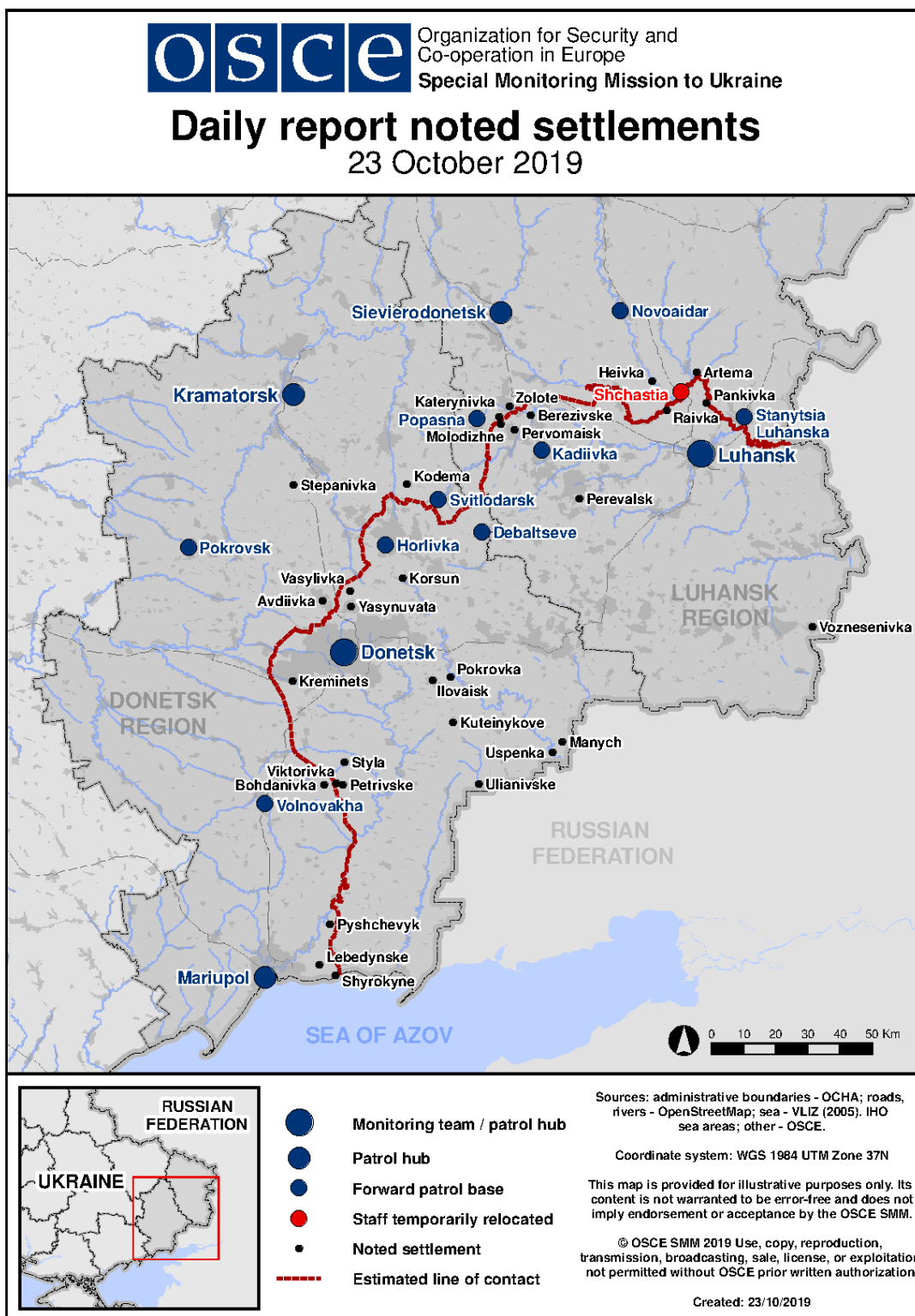
controlled, 97km S of Donetsk)	1-2km W	Heard	11	Shot		Small arms	22-Oct, 13:28-13:41
	1km SE	Heard	1	Explosion	Outgoing	Mortar (120mm)	22-Oct, 13:51
	1km SE	Heard	1	Explosion	Outgoing	Mortar (120mm)	22-Oct, 14:04
	600-800m W	Heard	1	Explosion	Outgoing	Mortar (82mm)	22-Oct, 14:12
	3-4km NW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 14:12
	2-3km NNW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 14:14
	2-3km NE	Heard	6	Explosion	Undetermined	N/K	22-Oct, 11:30-11:52
About 2km SE of Lebedynske (government-controlled, 99km S of Donetsk)	2-3km NE	Heard	4	Burst		HMG	22-Oct, 11:30-11:52
	2-3km NE	Heard	6	Shot		Small arms	22-Oct, 11:30-11:52
	2-3km NE	Heard	23	Explosion	Undetermined	N/K	22-Oct, 11:50-12:20
	2-3km NNE	Heard	2	Explosion	Undetermined	N/K	22-Oct, 13:40
	2-3km NNE	Heard	4	Explosion	Undetermined	N/K	22-Oct, 14:05-14:06
	2-3km NNE	Heard	2	Explosion	Undetermined	N/K	22-Oct, 14:14
About 2km SSE of Lomakyne (government-controlled, 93km S of Donetsk)	2-3km E	Heard	77	Explosion	Undetermined	N/K	22-Oct, 09:55-10:10
	2-3km E	Heard	65	Burst		HMG	22-Oct, 09:55-10:10
	2-3km E	Heard	3	Explosion	Undetermined	N/K	22-Oct, 10:22-10:27
	2-3km E	Heard	7	Shot		Small arms	22-Oct, 10:22-10:27
	2-3km E	Heard	2	Explosion	Undetermined	N/K	22-Oct, 10:55-11:15
About 1km N of Novotroitske (government-controlled, 36km SW of Donetsk)	2-3km NW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 11:26
About 2km SW of Pyshevyk (government-controlled, 84km S of Donetsk)	4-7km SE	Heard	37	Explosion	Undetermined	N/K	22-Oct, 09:42-10:05
	5km SE	Heard	4	Explosion	Outgoing	N/K	22-Oct, 09:42-10:05
	7km SE	Heard	4	Explosion	Impact	N/K	22-Oct, 09:42-10:05
	5-7km SE	Heard	70	Burst		HMG	22-Oct, 09:42-10:05
	5-7km SE	Heard	60	Burst		Small arms	22-Oct, 09:42-10:05
	5-7km SE	Heard	19	Explosion	Undetermined	N/K	22-Oct, 10:06-10:15
	5-7km SE	Heard	15	Burst		HMG	22-Oct, 10:06-10:15
	5-7km SE	Heard	12	Burst		Small arms	22-Oct, 10:06-10:15
	5-7km SE	Heard	2	Explosion	Undetermined	N/K	22-Oct, 10:19-10:25
	5-7km SE	Heard	6	Burst		HMG	22-Oct, 10:19-10:25
Horlivka (non-government-controlled, 39km NE of Donetsk)	3-4km WSW	Heard	2	Explosion	Undetermined	N/K	21-Oct, 23:15
	4-6km NW	Heard	2	Explosion	Undetermined	N/K	21-Oct, 23:32
	2-4km WNW	Heard	4	Explosion	Undetermined	N/K	21-Oct, 23:43
	2-4km WNW	Heard	2	Explosion	Undetermined	N/K	21-Oct, 23:45
	3-5km NW	Heard	1	Explosion	Undetermined	N/K	21-Oct, 23:47
	3-5km WNW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 00:35
	3-5km NW	Heard	3	Explosion	Undetermined	N/K	22-Oct, 00:45

	3-5km WNW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 00:55
	2-3km WNW	Heard	6	Burst		Small arms	22-Oct, 00:55
	2-3km NNW	Heard	8	Burst		Small arms	22-Oct, 01:02
	3-5km NNW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 01:02
	3-5km NNW	Heard	21	Explosion	Undetermined	N/K	22-Oct, 01:05-01:11
	2-3km NW	Heard	7	Burst		Small arms	22-Oct, 01:11-01:12
	1-2km NW	Heard	12	Shot		Small arms	22-Oct, 01:11-01:12
	3-5km NW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 01:11
	2-3km NW	Heard	81	Burst		Small arms	22-Oct, 02:04-02:07
	3-5km WNW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 17:07
	3-5km WNW	Heard	51	Burst		HMG	22-Oct, 17:10-17:15
	2-3km SW	Heard	42	Burst		Small arms	22-Oct, 14:30
	2-3km SW	Heard	12	Burst		HMG	22-Oct, 14:35
	2-3km SW	Heard	4	Explosion	Undetermined	N/K	22-Oct, 14:38
	2-3km SE	Heard	3	Burst		HMG	21-Oct, 18:55
	7-8km SW	Heard	5	Explosion	Undetermined	N/K	21-Oct, 19:32-19:33
	7-8km SW	Heard	1	Explosion	Undetermined	N/K	21-Oct, 19:50
	5-6km SSE	Heard	2	Explosion	Undetermined	N/K	21-Oct, 20:02
	2-3km SSE	Heard	3	Burst		HMG	21-Oct, 20:03
	6-7km SSE	Heard	2	Explosion	Undetermined	N/K	21-Oct, 20:06
	5-6km SSE	Heard	1	Explosion	Undetermined	N/K	21-Oct, 20:08
	2-3km SSE	Heard	5	Burst		HMG	21-Oct, 20:31
	4-6km S	Heard	2	Explosion	Undetermined	N/K	21-Oct, 23:13
	4-6km S	Heard	1	Explosion	Undetermined	N/K	21-Oct, 23:15
	4-6km S	Heard	1	Explosion	Undetermined	N/K	21-Oct, 23:17
	5-7km SW	Heard	2	Explosion	Undetermined	N/K	21-Oct, 23:19
	3-4km SW	Heard	5	Burst		HMG	21-Oct, 23:21
	2-3km SE	Heard	7	Burst		Small arms	21-Oct, 23:23-23:25
	3-4km S	Heard	5	Burst		HMG	21-Oct, 23:26
	4-6km SW	Heard	4	Explosion	Undetermined	N/K	21-Oct, 23:26
	2-3km SE	Heard	8	Burst		Small arms	21-Oct, 23:28
	5-7km S	Heard	1	Explosion	Undetermined	N/K	21-Oct, 23:29
	3-5km S	Heard	4	Explosion	Undetermined	N/K	21-Oct, 23:29-23:30
	2-3km SE	Heard	19	Shot		Small arms	21-Oct, 23:30-23:36
	2-3km SE	Heard	4	Burst		Small arms	21-Oct, 23:39-23:40
	2-3km SE	Heard	12	Burst		Small arms	21-Oct, 23:42-23:43
	5-7km SW	Heard	1	Explosion	Undetermined	N/K	21-Oct, 23:47
	2-3km SE	Heard	6	Burst		Small arms	21-Oct, 23:54-23:55
	4-5km SSW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 07:37
	3-5km SSW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 08:15
	4-6km S	Heard	8	Explosion	Undetermined	N/K	22-Oct, 09:55-10:05
	4-6km SSW	Heard	3	Explosion	Undetermined	N/K	22-Oct, 15:21
	4-6km SW	Heard	49	Explosion	Undetermined	N/K	22-Oct, 16:56-17:00
	4-6km SW	Heard	4	Explosion	Undetermined	N/K	22-Oct, 17:10
Svitlodarsk (government-controlled, 57km NE of Donetsk)							

	3-5km SW	Heard	8	Burst	Undetermined	HMG	22-Oct, 17:27-17:30
	3-5km SW	Heard	16	Explosion	Undetermined	N/K	22-Oct, 17:37-17:39
SMM camera in S part of the disengagement area near Zolote (government-controlled, 60km W of Luhansk)	2-3km E	Recorded	1	Projectile	In vertical flight (assessed as outside the disengagement area)	N/K	21-Oct, 22:56
SMM camera in Zolote (government-controlled, 60km W of Luhansk)	2-4km ENE	Recorded	7	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	21-Oct, 22:15
	2-4km ENE	Recorded	2	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	21-Oct, 22:16
W edge of Zolote-2/Karbonit (government-controlled, 62km NW of Luhansk)	2-4km SE	Heard	7	Shot and burst	Assessed as outside the Zolote disengagement area	Small arms	22-Oct, 08:22-08:23
S edge of disengagement area near Zolote (60km W of Luhansk)	5-8km W	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	22-Oct, 11:44
	6-8km SSW	Heard	12	Burst	Assessed as outside the disengagement area	IFV (BMP-2) cannon (30mm)	22-Oct, 13:58-13:59
3km N of Stepove (non-government-controlled, 27km W of Luhansk)	N/K NNW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 12:20
	N/K WNW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 12:38
1km N of Metalist (non-government-controlled, 7km NW of Luhansk)	6-10km NNW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 12:22-12:24
250m N of Stanytsia Luhanska Bridge (15km NE of Luhansk, inside the disengagement area)	8-10km WSW	Heard	4	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	22-Oct, 12:24
1km SSE of Stanytsia Luhanska Bridge (15km NE of Luhansk)	5-8km NE	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area)	Artillery (type N/K)	22-Oct, 12:23
NE edge of Raivka (non-government-controlled, 16km NW of Luhansk)	5-7km NW	Heard	2	Explosion	Undetermined	N/K	22-Oct, 12:23-12:28
W edge of Berezivske (non-government-controlled, 53km NW of Luhansk)	1-2km NNW	Heard	16	Shot		Small arms	22-Oct, 13:28-13:37
	1-2km NNW	Heard	3	Explosion	Undetermined	N/K	22-Oct, 13:28-13:37
E edge of Zolote-5/Mykhailivka (non-government-controlled, 58km NW of Luhansk)	1-2km WNW	Heard	6	Burst	Assessed as outside the disengagement area	Small arms	22-Oct, 13:58-13:59
E edge of Popasna	5-10km NW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 14:22

(government-controlled, 69km W of Luhansk)							
1.7km SW of Molodizhne (non-government-controlled, 63km NW of Luhansk)	4-5km NW	Heard	1	Explosion	Undetermined	N/K	22-Oct, 14:22
W edge of Pervomaisk (non-government-controlled, 58km W of Luhansk)	5-7km SSW	Heard	4	Explosion	Undetermined	N/K	22-Oct, 16:12-16:19
	5-7km SSW	Heard	8	Burst		N/K	22-Oct, 16:12-16:19

Map of Donetsk and Luhansk regions¹⁰



¹⁰ 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).