

# Daily Report 171/2020

20 July 2020<sup>1</sup>

## Summary

- Compared with the previous reporting period, between the evenings of 17 and 18 July, the SMM recorded more ceasefire violations in both Donetsk and Luhansk regions.
- Between the evenings of 18 and 19 July, the SMM recorded more ceasefire violations in both Donetsk and Luhansk regions compared with the previous 24 hours.
- Small-arms fire was directed at an SMM mini-unmanned aerial vehicle (UAV) near Petrivske, Donetsk region.
- The SMM followed up on civilian casualties and damage to a school and in a residential area as the result of shelling in the Trudivski area of Donetsk city's Petrovskyi district.
- The Mission continued monitoring the disengagement areas near Stanytsia Luhanska, Zolote and Petrivske and recorded ceasefire violations in and near the areas near Zolote and Petrivske. An SMM long-range UAV spotted people inside the disengagement areas near Petrivske during evening hours, as well as new military positions and trenches assessed as belonging to the Ukrainian Armed Forces.
- The Mission facilitated and monitored adherence to localised ceasefires to enable repairs to and maintenance of critical civilian infrastructure.
- The Mission continued following up on the situation of civilians amid the COVID-19 outbreak, including at entry-exit checkpoints and corresponding checkpoints in Donetsk and Luhansk regions.
- The SMM's freedom of movement continued to be restricted.\*

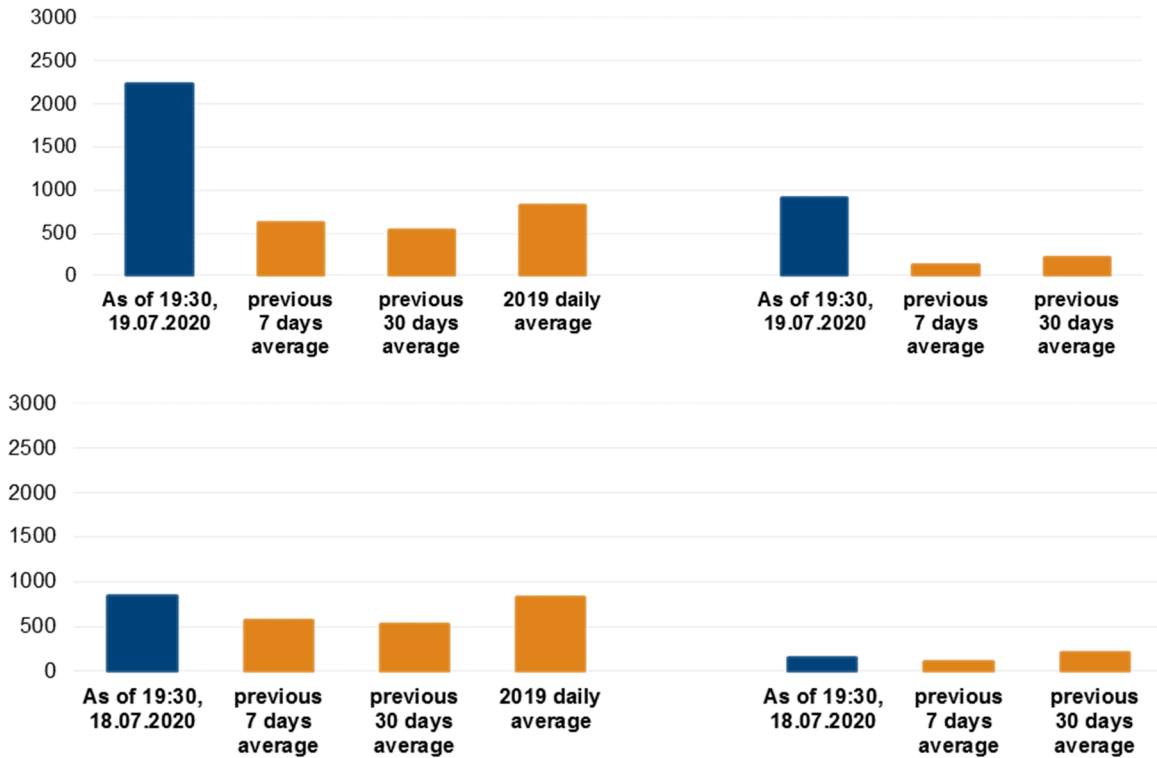
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<sup>1</sup> Based on information from the Monitoring Teams as of 19:30, 19 July 2020. All times are in Eastern European Summer Time.

**Ceasefire violations<sup>2</sup>**

**Number of recorded ceasefire violations<sup>3</sup>**

**Number of recorded explosions<sup>4</sup>**



<sup>2</sup> For a complete breakdown of ceasefire violations, please see the annexed table. During the reporting period, the SMM cameras in Petrivske, in Krasnohorivka, near Shyrokyne and at the Oktiabr mine were not operational.

<sup>3</sup> Including explosions.

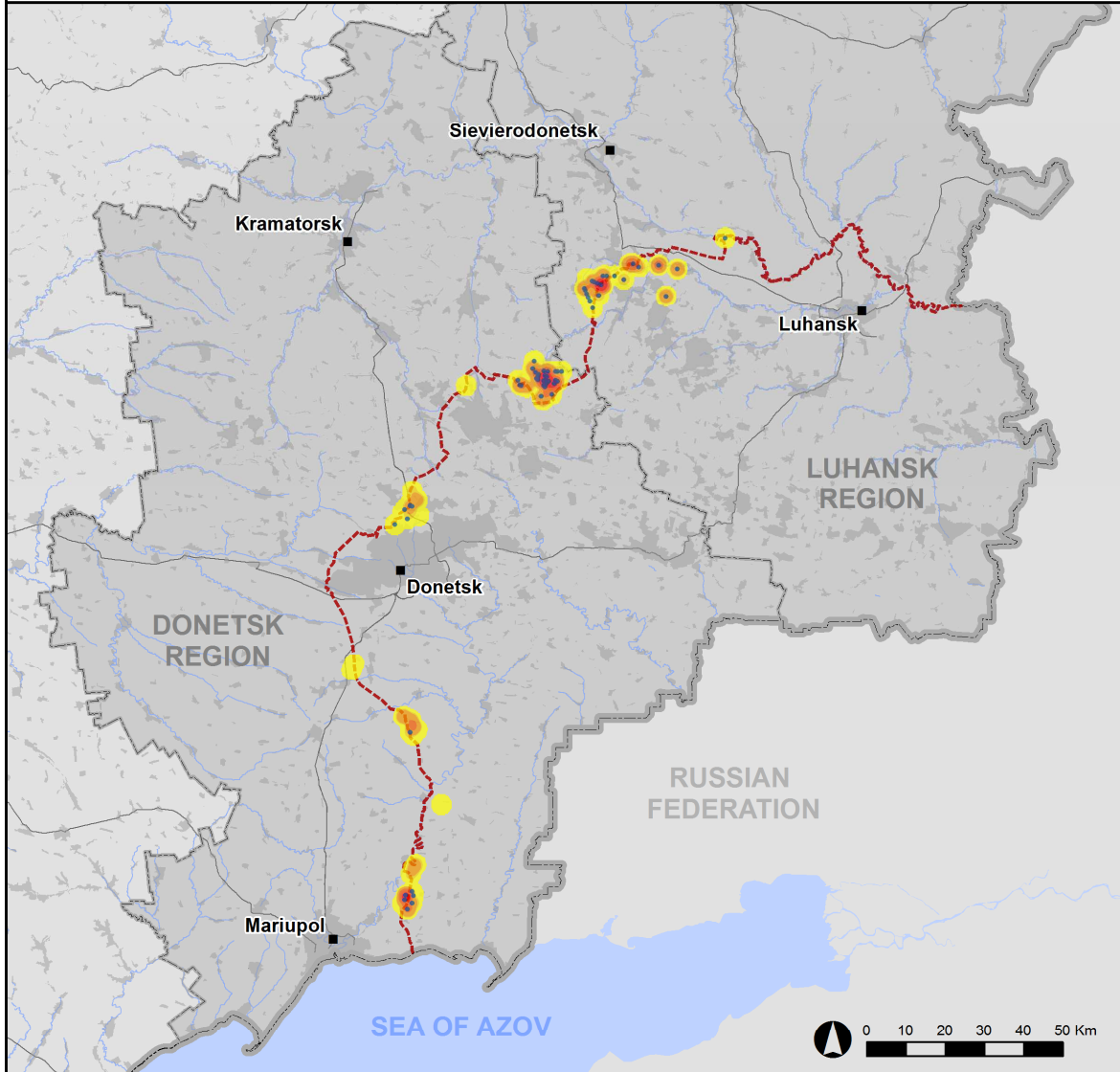
<sup>4</sup> Including from unidentified weapons.

### Map of recorded ceasefire violations

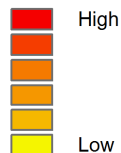


Organization for Security and  
Co-operation in Europe  
Special Monitoring Mission to Ukraine

## Ceasefire violations observed by the SMM 18-19 July 2020



#### 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: 20/07/2020

In Donetsk region, between the evenings of 17 and 18 July, the SMM recorded more ceasefire violations, including, however, fewer explosions (about 120), compared with the [previous reporting period](#) (about 155 explosions). The majority of ceasefire violations, including the majority of explosions, were recorded in areas east-south-east, south-east and south-south-west of Svitlodarsk (government-controlled, 57km north-east of Donetsk) and north-east of Hnutove (government-controlled, 90km south of Donetsk).

Between the evenings of 18 and 19 July, the Mission recorded more ceasefire violations, including more explosions (about 600), compared with the previous 24 hours. The majority of ceasefire violations, including the majority of explosions, were recorded in areas east, east-south-east and south-east of Svitlodarsk.

In Luhansk region, between the evenings of 17 and 18 July, the SMM recorded more ceasefire violations, including, however, fewer explosions (about 30), compared with the [previous reporting period](#) (about 55 explosions). The majority of ceasefire violations, including almost all explosions, were recorded in areas east and south of the disengagement area near Zolote (government-controlled, 60km west of Luhansk) (see below).

Between the evenings of 18 and 19 July, the SMM recorded more ceasefire violations, including more explosions (about 310), compared with the previous 24 hours. Almost all ceasefire violations, including almost all explosions, were again recorded in areas east and south of disengagement area near Zolote.

#### **Small-arms fire assessed as aimed at an SMM mini-unmanned aerial vehicle in Petrivske\***

On 19 July, an SMM mini-unmanned aerial vehicle (UAV) flying near Petrivske (non-government-controlled 41km south of Donetsk) experienced a loss of GPS signal, assessed as caused by probable jamming. The SMM subsequently heard two shots of small-arms fire, assessed as inside the disengagement area, followed by 36 bursts of small-arms fire, assessed as outside the disengagement area, all at an estimated range of 1.5-4km south-south-west and south-west and assessed as targeting the UAV, which was flying about 200-300m south-west. The SMM safely landed the UAV and left the area.\*

#### **Civilian injured and school and buildings in a residential area damaged by shelling in Trudivski area of Donetsk city's Petrovskiyi district**

The SMM followed up on reports of injuries to civilians as a result of shelling on 16 July in the Trudivski area of Donetsk city's Petrovskiyi district (non-government-controlled, 15km south-west of Donetsk city centre).

On 18 July, on the first floor of a two-storey apartment building at 13A Bokiia Street, the SMM observed a hole (20cm-wide) in the ceiling of the south-east facing entryway. On the second floor, the Mission observed a shattered south-east-facing window and an impact hole in the frame of an adjacent south-east-facing window. The SMM assessed the damage as fresh and caused by the explosion of an undermined projectile fired from a southerly direction and fragmentation from the explosion.

At the building, the SMM spoke with a woman and a man (in their sixties) and saw that the woman's right foot was bandaged. They said that on 16 July around 16:10, they had both

heard shelling. The woman said that she had been standing in the south-east-facing entryway of the building when she heard a whistling sound, saw and smelled smoke, temporarily lost her hearing, felt burning in her right hip and saw blood on her right foot. The man and woman said that a neighbour had called an ambulance, which had transported the woman to hospital no.14 in the Petrovskiy district. The woman showed the SMM a medical certificate that indicated that the woman had suffered from shrapnel wounds to her right foot and bruises on other parts of her body. A woman (in her fifties) living on the second floor of the same building told the SMM that she had been at home on 16 July at 16:10 when she heard a whistling sound and that her window had shattered (see above). She said she had heard her neighbours, the aforementioned man and woman, calling for help and that she had called an ambulance.

On the same day, at school no.116 on Samarska Street, the SMM saw three impact holes (approximately 1-1.5cm in diameter) in the south-west-facing side of the operational school building, as well as two impact holes (approximately 1-1.5cm in diameter) in the frames of two south-west-facing windows. The SMM assessed the damage as fresh but was unable to determine the type of weapon or the direction of fire. A teacher (man in his sixties) said he had been in the school yard when the shelling began around 16:15 on 16 July and that he had taken cover in the school building.

About 2m north of a store at 3 Bezlisna Street, the SMM saw a fresh scratch on a tree, which it assessed was caused by a projectile but was unable to determine the type of weapon or direction of fire.

A woman (in her thirties) told the SMM that she worked in the store and that on 16 July around 16:15, she had heard shelling and that she and five other people had taken cover in the store.

### Disengagement areas near Stanytsia Luhanska, Zolote and Petrivske<sup>5</sup>

On 18 and 19 July, inside the **disengagement area near Stanytsia Luhanska** (government-controlled, 16km north-east of Luhansk), the SMM saw two members of the armed formations (wearing armbands with “JCCC” written on them) between the new span of the Stanytsia Luhanska bridge (15km north-east of Luhansk) and their checkpoint south of it.

On the evening and night of 17-18 July, the SMM camera in Zolote recorded 61 projectiles in flight and an illumination flare, all at an assessed range of 3-5km east and assessed as outside **the disengagement area near Zolote** but within 5km of its periphery.

On the evening and night of 17-18 July, while on the northern edge of Popasna (government-controlled, 69km west of Luhansk), the Mission heard an undetermined explosion at an assessed range of 8-10km east and assessed as inside the disengagement area. It also heard four undetermined explosions and 45 bursts-of heavy-machine-gun and small-arms fire, all at an assessed range of 5-8km east and assessed as outside the disengagement area but within 5km of its periphery.

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<sup>5</sup> Disengagement is foreseen in the Framework Decision of the Trilateral Contact Group relating to disengagement of forces and hardware of 21 September 2016.

On July 18, while positioned at two locations near the disengagement area, the SMM heard 20 undetermined explosions and about 20 bursts and shots of heavy-machine-gun fire, all assessed as outside the disengagement area but within 5km of its periphery.

On 18 July, while conducting a mini-UAV flight along the northern edge of the disengagement area near Zolote, the SMM experienced a loss of GPS signal, assessed as caused by probable jamming. On 19 July, while conducting three separate mini-UAV flights along the northern edge of the disengagement area, the SMM experienced a loss of GPS signal, assessed as caused by probable jamming.\*

On 18 and 19 July, near the southern edge of the disengagement area near Zolote, the Mission saw six members of the armed formations (wearing armbands with "JCCC" written on them), some of whom were walking along road T-1316 inside the disengagement area up to about 350m north of its southern edge and then returned.

On the night of 18-19 July, the SMM camera in Zolote recorded an undetermined explosion, 78 projectiles in flight and three illumination flares, all at an assessed range of 4-6km east. On the same night, the SMM camera on northern edge of Popasna recorded 27 impact explosions of undetermined weapons, three undetermined explosions and two projectiles at an assessed range of 4-6km east-south-east. All of these ceasefire violations were assessed as outside the disengagement area but within its 5km periphery.

On the same night, while on the northern edge of Popasna, the Mission heard 54 undetermined explosions, 375 shots and bursts of heavy-machine-gun fire and ten bursts of automatic grenade launcher, all at an assessed range of 5-7km east-south-east. All these ceasefire violations were assessed as outside the disengagement area but within 5km of its periphery. Also on the same night, while in Kadiivka (formerly Stakhanov, non-government-controlled, 50km west of Luhansk), the SMM heard 15 undetermined explosions at an assessed range of 10-15km north-west, unable to be assessed as inside or outside the disengagement area.

On the night of 17-18 July, inside the **disengagement area near Petrivske**, an SMM long-range UAV spotted for the first time a new military position (not seen in imagery from 7 June 2020), assessed as belonging to the Ukrainian Armed Forces, consisting of two mortar pits and two new 20m-long trenches running parallel, connected by a perpendicular, new 20m-long trench, all about 500m east of the area's western edge in the south-western corner. On the western side of the southern-most trench the UAV spotted one person and on the eastern side of the same trench the UAV spotted three more people.

The same night, also inside the disengagement area, the same UAV spotted four people near former positions of the armed formations close to the area's south-eastern corner.

During the night of 17-18 July, the SMM camera 2km east of Bohdanivka (government-controlled, 41 km south-west of Donetsk) recorded an illumination flare at an assessed range of 3-5km east-south-east, unable to be assessed as inside or outside the disengagement area.

On 18 July, while positioned 700m north-west of Petrivske, the SMM heard a burst of heavy-machine gunfire at an assessed range of 2-3km south-south-east and assessed as outside the disengagement area but within 5km of its periphery.

During the evening of 18 July, the SMM camera 2km east of Bohdanivka recorded two undetermined explosions and six projectiles, all at an assessed range of 2-6km south-east and assessed as outside the disengagement area but within 5km of its periphery. It also recorded 48 projectiles at an assessed range of 3-5km south-east, unable to be assessed as inside or outside the disengagement area.

On 19 July, while positioned 700km north-west of Petrivske, the SMM heard ten shots and 14 bursts of small-arms fire at an assessed range of 1-1.5km south and assessed as inside the disengagement area. While positioned about 2km north of Petrivske, the Mission heard two shots of small-arms fire assessed as 2-4km south-south-west and assessed as inside the disengagement area, as well as 36 bursts of small arms fire at an assessed range of 1.5-2km south-west and assessed as outside the disengagement area but within 5km of its periphery.

While positioned near Bohdanivka, the SMM heard 16 shots and 32 bursts of small-arms fire, all at an assessed range of 1-2km north-east of its position and assessed as outside the disengagement area but within 5km of its 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. It saw a weapon in violation of withdrawal lines in a government-controlled area of Donetsk region.

### **Indications of military and military-type presence inside the security zone<sup>6</sup>**

The SMM observed armoured combat vehicles in the security zone in government-controlled areas of Donetsk region (for further details, see the table below).

### **SMM facilitation of repairs and maintenance of critical civilian infrastructure**

On 18 July, the SMM facilitated and monitored adherence to localised ceasefires to enable repairs to water infrastructure near Pankivka (non-government-controlled, 16km north of Luhansk), demining to support access to agricultural land in Heivka (government-controlled, 27km north-west of Luhansk), as well as vegetation clearance, inspection and maintenance of railway tracks near Vilkhove (government-controlled, 22km north-east of Luhansk).

On 19 July, the SMM facilitated and monitored adherence to localised ceasefires to enable repairs to electrical lines near Berezivske (non-government-controlled, 53km north-west of Luhansk) and vegetation clearance, inspection and maintenance of railway tracks near Vilkhove.

The Mission continued to facilitate the operation of the Donetsk Filtration Station (15km north of Donetsk). On 18 July, while positioned at three locations near the station, the Mission heard shots and bursts of heavy-machine-gun fire assessed as within a 5km radius of the station (see the table below). On 19 July, while positioned at three locations near the station, the SMM observed a calm situation.

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

## Measures taken at entry-exit checkpoints and corresponding checkpoints to counter COVID-19 outbreak

In Donetsk region, on 18 July, the SMM saw that the entry-exit checkpoint (EECP) near Hnutove (government-controlled, 90km south of Donetsk) was operational; however, it did not see any traffic in either direction. On 18 and 19 July, the SMM noted that the checkpoint of the armed formations near Olenivka (non-government-controlled, 23km south-west of Donetsk) was staffed but did not see any traffic in either direction.

In Luhansk region, on 18 July, the SMM noted that the EECP in Stanytsia Luhanska was operational. While at the EECP around 10:10 and 13:20, the Mission saw 53 pedestrians (mixed genders and ages) queuing to travel towards government-controlled areas and about 70 pedestrians (mixed genders and ages) queuing to travel in the opposite direction. On the same day, from 07:00 to 18:00, the SMM camera south of the Stanytsia Luhanska bridge recorded about 620 people traveling to government-controlled from non-government-controlled areas and about 550 people traveling in the opposite direction.

On 19 July, the SMM again noted that the EECP in Stanytsia Luhanska was operational. While at the EECP around 10:10 and 12:40, the SMM saw about 100 pedestrians (mixed genders and ages) queuing to travel towards government-controlled areas and about 40 pedestrians (mostly women, mixed ages) queuing to travel in the opposite direction. On 19 July, from 07:00 to 18:00, the SMM camera south of the Stanytsia Luhanska bridge recorded about 560 people traveling to government-controlled from non-government-controlled areas and about 800 people traveling in the opposite direction.

On both days, the SMM observed two golf carts operating between the EECP and the new span of the bridge.

The Mission continued monitoring in Kherson, Dnipro, Odessa, Lviv, Ivano-Frankivsk, Kharkiv, 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 and unexploded ordnance (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 Joint Centre for Control and Co-ordination (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 14 July 2020](#)). 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.*

*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 evening and night of 17-18 July, an SMM long-range UAV experienced dual GPS signal interference, assessed as jamming, while flying over areas between Petrivske (non-government-controlled, 41km south of Donetsk) and Mykolaivka (government-controlled, 40km south of Donetsk), as well as GPS signal interference, assessed as caused by probable jamming, while flying over areas between Kostiantynivka (government-controlled, 60km north of Donetsk) and Mykhailivka (non-government-controlled, 31km west of Luhansk).<sup>7</sup>
- On 18 July, while conducting a mini-UAV flight along the northern edge of the disengagement area near Zolote (government-controlled, 60km west of Luhansk), the SMM experienced a loss of GPS signal, assessed as caused by probable jamming.
- On 19 July, while conducting three separate mini-UAV flights along the northern edge of the Zolote disengagement area, the SMM experienced a loss of GPS signal, assessed as caused by probable jamming.
- On 19 July, while conducting a mini-UAV flight near Petrivske, the SMM experienced a loss of GPS signal, assessed as probable jamming, and subsequently heard two shots of small-arms fire assessed as inside the disengagement area followed by 36 bursts of small-arms fire, assessed as outside the disengagement area, all at an assessed range of 1.5-4km south-south-west and assessed as targeting the SMM UAV.
- On 19 July, while conducting a mid-range UAV flight near Andriivka (government-controlled, 61km south of Donetsk), the SMM UAV experienced a loss of GPS signal, assessed as caused by probable jamming.

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<sup>7</sup> The interference could have originated from anywhere within the radius of several kilometres of the UAV's position.

## Table of weapons

### Weapons in violation of withdrawal lines

Date	No. of weapons	Type of weapon	Location	Source of observation
<b>Government-controlled areas</b>				
17/07/2020	1	Surface-to-air missile system (9K35 <i>Strela-10</i> )	Near Novobesheve (21km south of Donetsk)	Long-range UAV

### Table of military and military-type presence in the security zone<sup>8</sup>

Date	No.	Type	Location	Source of observation
<b>Government-controlled areas</b>				
17/07/2020	1	Armoured combat vehicle	Near Berezove (31km south-west of Donetsk)	Long-range UAV
	3	Armoured combat vehicle	In a residential area of Taramchuk (29km south-west of Donetsk)	
	2	Infantry fighting vehicle (BMP-2)		
	1	Probable armoured personnel carrier (BTR variant)		
	1	Infantry fighting vehicle (BMP-1)	Near Nevelske (18km north-west of Donetsk)	
	2	Armoured combat vehicle		
18/07/2020	1	Armoured combat vehicle	Near Lebedynske (99km south of Donetsk)	Patrol
<b>Non-government-controlled areas</b>				
19/07/2020	3	Anti-aircraft gun (ZU-23, 23mm)	Near Novomykolaivka (19km south-east of Donetsk), covered by a tarpaulin and being towed by three utility trucks	Patrol

<sup>8</sup> 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 19 July 2020<sup>9</sup>**

SMM position	Event location	Means	No.	Observation	Description	Weapon	Date, time
SMM camera in Avdiivka (government-controlled, 17km N of Donetsk)	6-8km ESE	Recorded	1	Illumination flare	In vertical flight	N/K	17-Jul, 23:03
	6-8km ESE	Recorded	1	Muzzle flash		N/K	17-Jul, 23:03
	2-4km SE	Recorded	1	Projectile	WSW to ENE	N/K	17-Jul, 23:27
	3-5km ESE	Recorded	3	Projectile	N to S	N/K	17-Jul, 23:43
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 12:45
SMM camera in Berezove (government-controlled, 31km SW of Donetsk)	2-4km SE	Recorded	1	Burst	In vertical flight	N/K	18-Jul, 01:09
SMM camera 2km E of Bohdanivka (government-controlled, 41km SW of Donetsk)	3-5km ESE	Recorded	1	Illumination flare	Unable to assess if inside or outside the disengagement area near Petrivske	N/K	18-Jul, 01:28
SMM camera in Chermalyk (government-controlled, 77km S of Donetsk)	3-5km SSE	Recorded	8	Projectile	NNE to SSW	N/K	17-Jul, 23:12
	3-5km SSE	Recorded	4	Projectile	NNE to SSW	N/K	17-Jul, 23:13
SMM camera at Donetsk Filtration Station (15km N of Donetsk)	500-900m S	Recorded	1	Muzzle flash		N/K	17-Jul, 20:44
	500-900m S	Recorded	1	Explosion	Airburst (subsequent to previous event)	N/K	17-Jul, 20:44
	0.5-1km S	Recorded	1	Projectile	NW to SE	N/K	17-Jul, 21:05
	0.5-1km S	Recorded	1	Projectile	NW to SE	N/K	17-Jul, 21:06
	1-2km S	Recorded	1	Projectile	NW to SE	N/K	17-Jul, 21:30
	0.5-1km S	Recorded	2	Explosion	Undetermined	N/K	17-Jul, 21:31
	0.5-1km S	Recorded	2	Muzzle flash		N/K	17-Jul, 21:31

<sup>9</sup> The table only includes ceasefire violations directly observed by the SMM patrols or recorded by the SMM cameras 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 technical monitoring officers, 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 technical limitations and/or other considerations. Ceasefire violations recorded by more than one patrol/camera and assessed to be the same are entered only once.

	0.5-1km S	Recorded	2	Projectile	NW to SE	N/K	17-Jul, 21:31
	0.5-1km S	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 21:32
	0.5-1km S	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 21:34
	2-4km SSW	Recorded	1	Projectile	NW to SE	N/K	17-Jul, 21:40
	0.8-1.2km SSE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 00:04
	0.8-1.2km SSE	Recorded	2	Explosion	Undetermined	N/K	18-Jul, 00:05
	300-600m SSW	Recorded	1	Muzzle flash		N/K	18-Jul, 01:33
SMM camera 1.5km NE of Hnutove (government- controlled, 90km S of Donetsk)	2-4km E	Recorded	7	Projectile	WSW to ENE (also recorded by SMM camera in Chermalyk)	N/K	17-Jul, 21:42
	2-4km E	Recorded	2	Projectile	WNW to ESE	N/K	17-Jul, 21:42
	2-4km E	Recorded	6	Projectile	W to E	N/K	17-Jul, 21:43
	2-4km E	Recorded	3	Explosion	Undetermined	N/K	17-Jul, 21:44
	2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 21:44
	2-4km E	Recorded	7	Projectile	WNW to ESE	N/K	17-Jul, 21:44
	2-4km E	Recorded	12	Projectile	N to S	N/K	17-Jul, 21:50
	2-4km E	Recorded	3	Projectile	WNW to ESE	N/K	17-Jul, 21:53
	2-4km E	Recorded	1	Muzzle flash		N/K	17-Jul, 21:55
	2-4km E	Recorded	1	Projectile	NW to SE (subsequent to previous event)	N/K	17-Jul, 21:55
	2-4km E	Recorded	5	Projectile	W to E	N/K	17-Jul, 21:57
	2-4km E	Recorded	5	Explosion	Undetermined	N/K	17-Jul, 21:58
	2-4km E	Recorded	14	Projectile	W to E	N/K	17-Jul, 21:58
	2-4km ESE	Recorded	2	Projectile	SW to NE	N/K	17-Jul, 21:59
	2-4km E	Recorded	3	Projectile	NNW to SSE	N/K	17-Jul, 21:59
	2-4km E	Recorded	3	Projectile	NNW to SSE	N/K	17-Jul, 22:00
	2-4km ESE	Recorded	4	Projectile	N to S	N/K	17-Jul, 22:02
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 22:04
	2-4km E	Recorded	2	Explosion	Undetermined	N/K	17-Jul, 22:05
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 22:07
	2-4km E	Recorded	5	Projectile	WNW to ESE	N/K	17-Jul, 22:07
	2-4km E	Recorded	13	Projectile	W to E	N/K	17-Jul, 22:08
	2-4km ESE	Recorded	5	Explosion	Undetermined	N/K	17-Jul, 22:10
	2-4km E	Recorded	15	Projectile	WNW to ESE	N/K	17-Jul, 22:10
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 22:13

2-4km E	Recorded	7	Projectile	NNW to SSE	N/K	17-Jul, 22:14
2-4km E	Recorded	2	Explosion	Undetermined	N/K	17-Jul, 22:15
2-4km E	Recorded	4	Projectile	WSW to ENE	N/K	17-Jul, 22:15
2-4km E	Recorded	4	Projectile	WSW to ENE	N/K	17-Jul, 22:16
2-4km E	Recorded	5	Projectile	WSW to ENE	N/K	17-Jul, 22:17
2-4km E	Recorded	8	Projectile	WSW to ENE	N/K	17-Jul, 22:19
2-4km ESE	Recorded	6	Explosion	Undetermined	N/K	17-Jul, 22:21
2-4km E	Recorded	5	Projectile	WNW to ESE	N/K	17-Jul, 22:21
2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 22:28
2-4km ESE	Recorded	2	Muzzle flash		N/K	17-Jul, 22:28
2-4km ESE	Recorded	2	Projectile	SW to NE (subsequent to previous event)	N/K	17-Jul, 22:28
2-4km ESE	Recorded	23	Projectile	WNW to ESE	N/K	17-Jul, 22:28
2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 22:28
2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 22:29
2-4km E	Recorded	1	Projectile	SW to NE	N/K	17-Jul, 22:29
2-4km E	Recorded	1	Muzzle flash		N/K	17-Jul, 22:30
2-4km E	Recorded	1	Projectile	NNW to SSE (subsequent to previous event)	N/K	17-Jul, 22:30
2-4km E	Recorded	1	Explosion	Subsequent to previous event	N/K	17-Jul, 22:30
2-4km E	Recorded	4	Projectile	WNW to ESE	N/K	17-Jul, 22:30
2-4km ESE	Recorded	1	Projectile	SW to NE	N/K	17-Jul, 22:30
2-4km ESE	Recorded	1	Muzzle flash		N/K	17-Jul, 22:31
2-4km ESE	Recorded	1	Projectile	SW to NE (subsequent to previous event)	N/K	17-Jul, 22:31
2-4km ESE	Recorded	4	Projectile	SW to NE	N/K	17-Jul, 22:31
2-4km E	Recorded	1	Muzzle flash		N/K	17-Jul, 22:34
2-4km E	Recorded	1	Projectile	NNW to SSE (subsequent to previous event)	N/K	17-Jul, 22:34
2-4km E	Recorded	1	Projectile	SW to NE	N/K	17-Jul, 22:34
2-4km E	Recorded	7	Projectile	NW to SE	N/K	17-Jul, 22:34
2-4km E	Recorded	4	Explosion	Undetermined	N/K	17-Jul, 22:35
2-4km E	Recorded	1	Projectile	WSW to ENE	N/K	17-Jul, 22:43

	2-4km ESE	Recorded	4	Projectile	NNW to SSE	N/K	17-Jul, 22:46
	2-4km E	Recorded	3	Projectile	SW to NE	N/K	17-Jul, 22:50
	2-4km ESE	Recorded	1	Projectile	SW to NE	N/K	17-Jul, 22:52
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 23:08
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	17-Jul, 23:08
	2-4km E	Recorded	2	Projectile	SW to NE	N/K	17-Jul, 23:09
	2-4km E	Recorded	2	Projectile	NNW to SSE	N/K	17-Jul, 23:44
	2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 23:45
	2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 23:46
	2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 23:49
	2-4km E	Recorded	9	Projectile	WNW to ESE	N/K	17-Jul, 23:51
	2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 23:59
	2-4km E	Recorded	3	Projectile	NNW to SSE	N/K	18-Jul, 00:04
	2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	18-Jul, 00:05
	2-4km SE	Recorded	2	Projectile	N to S	N/K	18-Jul, 00:11
	2-4km E	Recorded	1	Projectile	NNW to SSE	N/K	18-Jul, 00:11
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	18-Jul, 00:13
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	18-Jul, 00:21
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	18-Jul, 00:31
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	18-Jul, 00:46
SMM camera at entry-exit checkpoint in Maiorsk (government-controlled, 45km NE of Donetsk)	1-2km ENE	Recorded	2	Projectile	NNW to SSE	N/K	17-Jul, 22:40
SMM camera in Svitlodarsk (government-controlled, 57km NE of Donetsk)	1-3km SE	Recorded	1	Projectile	NW to SE	N/K	17-Jul, 22:06
	1-3km SE	Recorded	1	Projectile	NW to SE	N/K	17-Jul, 22:55
	1-3km SE	Recorded	1	Projectile	In vertical flight	N/K	17-Jul, 23:07
	1-3km SE	Recorded	1	Projectile	NE to SW	N/K	17-Jul, 23:14
	1-3km SE	Recorded	4	Projectile	NW to SE	N/K	17-Jul, 23:16
	1-3km SE	Recorded	1	Projectile	NW to SE	N/K	17-Jul, 23:17
	1-3km SE	Recorded	1	Projectile	WNW to ESE	N/K	17-Jul, 23:23
	1-3km SE	Recorded	1	Projectile	NNW to SSE	N/K	17-Jul, 23:26
	1-3km SE	Recorded	5	Projectile	W to E	N/K	17-Jul, 23:31
	1-3km SE	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 23:32
	1-3km SE	Recorded	2	Projectile	W to E	N/K	17-Jul, 23:40

	1-3km SE	Recorded	12	Projectile	In vertical flight	N/K	17-Jul, 23:50
	1-3km SE	Recorded	4	Projectile	In vertical flight	N/K	17-Jul, 23:51
	3-5km WSW	Recorded	1	Explosion	Airburst	N/K	18-Jul, 01:55
About 1km NW of the railway station in Yasynuvata (non-government-controlled, 16km NE of Donetsk)	1km NNW	Heard	3	Shot		Small arms	18-Jul, 09:40
	1km NNW	Heard	11	Burst		Small arms	18-Jul, 09:40
	1-1.5km NNW	Heard	20	Burst		Small arms	18-Jul, 10:20
SE part of Avdiivka (government-controlled, 17km N of Donetsk)	2-3km E	Heard	8	Burst		HMG	18-Jul, 09:40
About 500m NE of Kamianka (government-controlled, 20km N of Donetsk)	2-3km SE	Heard	11	Burst		HMG	18-Jul, 09:38
About 700m NW of Petrivske (non-government-controlled, 41km S of Donetsk)	2-3km SSE	Heard	1	Burst	Assessed as outside the disengagement area	HMG	18-Jul, 12:07
Svitlodarsk (government-controlled, 57km NE of Donetsk)	3-4km SSW	Heard	25	Burst		HMG	17-Jul, 18:55
	3-5km SW	Heard	1	Explosion	Undetermined	N/K	17-Jul, 19:19
	3-5km SW	Heard	5	Burst		HMG	17-Jul, 19:21
	3-5km SE	Heard	2	Explosion	Undetermined	N/K	17-Jul, 20:41
	3-4km SE	Heard	4	Burst		HMG	17-Jul, 21:46
	4-5km ESE	Heard	1	Burst		HMG	17-Jul, 21:55
	4-5km ESE	Heard	2	Explosion	Undetermined	N/K	17-Jul, 21:55
	4-5km ESE	Heard	3	Explosion	Undetermined	N/K	17-Jul, 22:03
	4-5km ESE	Heard	15	Burst		HMG	17-Jul, 22:03-22:07
	3-4km ESE	Heard	4	Explosion	Undetermined	N/K	17-Jul, 22:09-22:12
	4-5km ESE	Heard	2	Burst		HMG	17-Jul, 22:17

	4-5km SE	Heard	1	Explosion	Undetermined	N/K	17-Jul, 22:19
	3-4km ESE	Heard	11	Explosion	Undetermined	N/K	17-Jul, 22:57-23:05
	4-5km ESE	Heard	19	Burst		HMG	17-Jul, 23:05-23:06
	3-4km ESE	Heard	22	Explosion	Undetermined	N/K	17-Jul, 23:15-23:30
	3-4km ESE	Heard	33	Burst		HMG	17-Jul, 23:15-23:32
	3-4km ESE	Heard	3	Explosion	Undetermined	N/K	17-Jul, 23:36
	3-4km ESE	Heard	36	Burst		HMG	17-Jul, 23:36-23:45
	4-5km SE	Heard	8	Explosion	Undetermined	N/K	17-Jul, 23:56-23:59
	4-5km SE	Heard	15	Explosion	Undetermined	N/K	18-Jul, 15:55-16:15
	4-5km SE	Heard	40	Burst		HMG	18-Jul, 15:55-16:15
	4-5km SE	Heard	1	Explosion	Undetermined	N/K	18-Jul, 18:25
SMM camera on N edge of Popasna (government-controlled, 69km W of Luhansk)	3-5km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 23:57
	4-6km SSE	Recorded	1	Explosion	Undetermined	N/K	17-Jul, 23:57
SMM camera in Zolote (government-controlled, 60km W of Luhansk)	3-5km E	Recorded	4	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	17-Jul, 22:03
	3-5km E	Recorded	4	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	17-Jul, 22:03
	3-5km E	Recorded	1	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	17-Jul, 22:03
	3-5km E	Recorded	2	Projectile	SSW to NNE (assessed as outside the disengagement area)	N/K	17-Jul, 22:06



	3-5km E	Recorded	1	Projectile	In vertical flight (assessed as outside the disengagement area)	N/K	17-Jul, 22:12
	3-5km E	Recorded	1	Illumination flare	In vertical flight (assessed as outside the disengagement area)	N/K	17-Jul, 22:29
	3-5km E	Recorded	2	Projectile	SW to NE (assessed as outside the disengagement area)	N/K	17-Jul, 22:50
	3-5km E	Recorded	11	Projectile	SW to NE (assessed as outside the disengagement area)	N/K	17-Jul, 22:51
	3-5km E	Recorded	1	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	17-Jul, 22:54
	3-5km E	Recorded	1	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	17-Jul, 22:55
	3-5km E	Recorded	1	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	17-Jul, 23:33
	3-5km E	Recorded	33	Projectile	SSW to NNE (assessed as outside the disengagement area)	N/K	17-Jul, 23:45
N edge of Popasna (government-controlled, 69km W of	3-4km SSE	Heard	4	Explosion	Impact	Mortar (type N/K)	17-Jul, 22:00-22:06
	3-4km SSE	Heard	55	Shot and burst		HMG	17-Jul, 22:05-22:14

Luhansk)	6-8km E	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	17-Jul, 23:34
	5-7km E	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	17-Jul, 23:59
	8-10km E	Heard	1	Explosion	Undetermined (assessed as inside the disengagement area)	N/K	18-Jul, 00:20
	5-7km E	Heard	2	Burst	Assessed as outside the disengagement area	HMG	18-Jul, 00:44
	5-7km E	Heard	43	Burst	Assessed as outside the disengagement area	Small arms	18-Jul, 04:18-04:22
Zolote-4/Rodina (government-controlled, 59km W of Luhansk)	3-5km E	Heard	20	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	18-Jul, 10:25-10:26
	3-5km E	Heard	1	Burst	Assessed as outside the disengagement area	HMG	18-Jul, 10:25-10:26
3km N of Pervomaisk (non-government-controlled, 58km W of Luhansk)	4-5km NE	Heard	20	Shot	Assessed as outside the disengagement area	HMG	18-Jul, 10:26
SMM camera in Avdiivka (government-controlled, 17km N of Donetsk)	4-6km SE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 23:52
	4-6km SE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 23:54
	4-6km SE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 23:57
	4-6km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:08
	4-6km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:11
	4-6km ESE	Recorded	1	Projectile	NNW to SSE	N/K	19-Jul, 01:54
	4-6km ESE	Recorded	5	Projectile	WSW to ENE	N/K	19-Jul, 01:55

<p>SMM camera in Berezove (government-controlled, 31km SW of Donetsk)</p>	<p>3-5km SSE</p>	<p>Recorded</p>	<p>1</p>	<p>Projectile</p>	<p>In vertical flight</p>	<p>N/K</p>	<p>18-Jul, 22:51</p>
<p>SMM camera 2km E of Bohdanivka (government-controlled, 41km SW of Donetsk)</p>	<p>3-5km SE</p>	<p>Recorded</p>	<p>1</p>	<p>Explosion</p>	<p>Undetermined (assessed as outside the disengagement area near Petrivske)</p>	<p>N/K</p>	<p>18-Jul, 21:35</p>
	<p>4-6km SE</p>	<p>Recorded</p>	<p>1</p>	<p>Projectile</p>	<p>In vertical flight (assessed as outside the disengagement area near Petrivske)</p>	<p>N/K</p>	<p>18-Jul, 22:51</p>
	<p>3-5km ESE</p>	<p>Recorded</p>	<p>20</p>	<p>Projectile</p>	<p>In vertical flight (unable to assess if inside or outside the disengagement area near Petrivske)</p>	<p>N/K</p>	<p>18-Jul, 22:59</p>
	<p>3-5km ESE</p>	<p>Recorded</p>	<p>22</p>	<p>Projectile</p>	<p>WSW to ENE (unable to assess if inside or outside the disengagement area near Petrivske)</p>	<p>N/K</p>	<p>18-Jul, 23:00</p>
	<p>3-5km SE</p>	<p>Recorded</p>	<p>1</p>	<p>Explosion</p>	<p>Undetermined (assessed as outside the disengagement area near Petrivske)</p>	<p>N/K</p>	<p>18-Jul, 23:01</p>
	<p>3-5km SE</p>	<p>Recorded</p>	<p>5</p>	<p>Projectile</p>	<p>W to E (assessed as outside the disengagement area near Petrivske)</p>	<p>N/K</p>	<p>18-Jul, 23:02</p>

	3-5km SE	Recorded	1	Projectile	SW to NE (unable to assess if inside or outside the disengagement area near Petrivske)	N/K	18-Jul, 23:04
	3-5km SE	Recorded	5	Projectile	SW to NE (unable to assess if inside or outside the disengagement area near Petrivske)	N/K	18-Jul, 23:10
SMM camera in Chermalyk (government-controlled, 77km S of Donetsk)	2-4km ESE	Recorded	1	Burst	In vertical flight	N/K	18-Jul, 21:22
	2-4km SE	Recorded	11	Projectile	In vertical flight	N/K	18-Jul, 21:23
	2-4km SE	Recorded	4	Projectile	In vertical flight	N/K	18-Jul, 21:24
	2-4km ESE	Recorded	21	Projectile	In vertical flight	N/K	18-Jul, 21:24
	2-4km SE	Recorded	1	Burst	In vertical flight	N/K	18-Jul, 22:34
	2-4km SE	Recorded	4	Projectile	ENE to WSW	N/K	19-Jul, 03:09
	2-4km SE	Recorded	2	Projectile	NE to SW	N/K	19-Jul, 03:12
SMM camera at Donetsk Filtration Station (15km N of Donetsk)	1-2km SSW	Recorded	1	Projectile	NW to SE	N/K	18-Jul, 23:49
	1-2km SSW	Recorded	1	Projectile	WSW to ENE	N/K	18-Jul, 23:49
SMM camera 1.5km NE of Hnutove (government-controlled, 90km S of Donetsk)	2-4km E	Recorded	10	Projectile	NNW to SSE (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 21:14
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 21:14
	2-4km ESE	Recorded	12	Projectile	In vertical flight	N/K	18-Jul, 21:22
	2-4km ESE	Recorded	23	Projectile	In vertical flight	N/K	18-Jul, 21:23
	2-4km SE	Recorded	1	Projectile	WSW to ENE	N/K	18-Jul, 21:36
	2-4km SE	Recorded	1	Projectile	WSW to ENE	N/K	18-Jul, 21:37
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	18-Jul, 22:31
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 23:13

4-6km ESE	Recorded	1	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:25
4-6km SE	Recorded	4	Projectile	N to S	N/K	18-Jul, 23:32
4-6km SE	Recorded	4	Projectile	N to S	N/K	18-Jul, 23:36
4-6km SE	Recorded	2	Explosion	Undetermined	N/K	18-Jul, 23:36
4-6km ESE	Recorded	2	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:37
4-6km ESE	Recorded	2	Explosion	Undetermined	N/K	18-Jul, 23:38
4-6km ESE	Recorded	2	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:43
4-6km ESE	Recorded	3	Projectile	N to S (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:50
4-6km SE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 23:52
4-6km ESE	Recorded	1	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:53
4-6km ESE	Recorded	2	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:54
4-6km ESE	Recorded	2	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:56
4-6km ESE	Recorded	1	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:57
4-6km ESE	Recorded	1	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	18-Jul, 23:59

4-6km ESE	Recorded	1	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	19-Jul, 00:01
4-6km ESE	Recorded	1	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	19-Jul, 00:03
4-6km ESE	Recorded	1	Explosion	Undetermined (also recorded by SMM camera in Chermalyk)	N/K	19-Jul, 00:05
4-6km SE	Recorded	22	Projectile	N to S	N/K	19-Jul, 00:07
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 00:07
4-6km ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:07
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 00:09
4-6km SE	Recorded	3	Projectile	N to S	N/K	19-Jul, 00:12
4-6km ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:12
4-6km ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:13
4-6km SE	Recorded	12	Projectile	SSW to NNE	N/K	19-Jul, 00:13
4-6km ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:14
4-6km ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:16
4-6km ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:21
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 00:28
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 00:35
4-6km E	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:39
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 01:05
4-6km ESE	Recorded	1	Projectile	SW to NE	N/K	19-Jul, 01:07
4-6km SE	Recorded	14	Projectile	SW to NE	N/K	19-Jul, 01:27
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 01:45
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 02:17
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 02:48
4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 03:03

	4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 03:12
	4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 03:22
	4-6km SE	Recorded	1	Illumination flare	In vertical flight	N/K	19-Jul, 03:28
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 22:25
	2-4km ESE	Recorded	1	Projectile	In vertical flight	N/K	18-Jul, 23:14
	2-4km ESE	Recorded	1	Projectile	SW to NE	N/K	19-Jul, 02:18
	2-4km ESE	Recorded	1	Projectile	WNW to ESE	N/K	19-Jul, 02:18
	2-4km ESE	Recorded	3	Projectile	SW to NE	N/K	19-Jul, 02:19
SMM camera in Hranitne (government-controlled, 60km S of Donetsk)	4-6km ESE	Recorded	1	Illumination flare	In vertical flight	N/K	18-Jul, 21:43
SMM camera in Svitlodarsk (government-controlled, 57km NE of Donetsk)	5-7km SE	Recorded	28	Projectile	In vertical flight	N/K	18-Jul, 21:22
	5-7km SE	Recorded	58	Projectile	In vertical flight	N/K	18-Jul, 21:23
	6-8km SSE	Recorded	30	Projectile	In vertical flight	N/K	18-Jul, 21:23
	2-4km SE	Recorded	2	Projectile	W to E	N/K	18-Jul, 22:58
	6-8km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 00:05
About 600m ENE of Vesele (non-government-controlled, 9km NW of Donetsk)	2-3km NE	Heard	1	Explosion	Undetermined	N/K	19-Jul, 11:37
About 700m NW of Petrivske (non-government-controlled, 41km S of Donetsk)	1-1.5km S	Heard	14	Burst	Assessed as inside the disengagement area	Small arms	19-Jul, 10:56
	1-1.5km S	Heard	10	Shot	Assessed as inside the disengagement area	Small arms	19-Jul, 10:56
About 2km N of Petrivske (non-government-controlled,	2-4km SSW	Heard	2	Shot	Assessed as inside the disengagement area	Small arms	19-Jul, 11:48

41km S of Donetsk)	1.5-2km SW	Heard	36	Burst	Assessed as outside the disengagement area	Small arms	19-Jul, 11:57
About 2km E of Bohdaniivka (government-controlled, 41km SW of Donetsk)	1-2km NE	Heard	16	Shot	Assessed as outside the disengagement area near Petrivske	Small arms	19-Jul, 11:48
	1-2km NE	Heard	32	Burst	Assessed as outside the disengagement area near Petrivske	Small arms	19-Jul, 11:57
Svitlodarsk (government-controlled, 57km NE of Donetsk)	5-7km SSE	Heard	3	Explosion	Undetermined	N/K	18-Jul, 20:30-20:40
	5-7km SSE	Heard	4	Explosion	Undetermined	N/K	18-Jul, 23:20-23:40
	5-7km SSE	Heard	12	Burst		HMG	18-Jul, 23:20-23:40
	5-7km SSE	Heard	2	Explosion	Undetermined	N/K	18-Jul, 23:45-23:47
	5-7km SSE	Heard	2	Explosion	Undetermined	N/K	18-Jul, 23:52
	5-7km SSE	Heard	2	Explosion	Undetermined	N/K	18-Jul, 23:56
	3-4km ESE	Heard	30	Explosion	Undetermined	N/K	19-Jul, 04:20-04:50
	2-4km ESE	Heard	70	Explosion	Undetermined	IFV (type N/K)	19-Jul, 04:20-04:50
	0-1km SE	Heard	25	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 04:55-05:25
	3-4km SE	Heard	75	Explosion	Undetermined	N/K	19-Jul, 04:55-05:25
	3-4km SE	Heard	50	Burst		HMG	19-Jul, 04:55-05:25
	3-4km ESE	Heard	55	Explosion	Undetermined	N/K	19-Jul, 05:35-06:25
	3-4km ESE	Heard	40	Burst		HMG	19-Jul, 05:35-06:25
	3-4km E	Heard	30	Explosion	Undetermined	N/K	19-Jul, 05:35-06:25
	3-4km E	Heard	25	Burst		HMG	19-Jul, 05:35-06:25
	3-4km SE	Heard	20	Burst		HMG	19-Jul, 05:35-06:25
3-4km SE	Heard	30	Explosion	Undetermined	N/K	19-Jul, 05:35-06:25	
5-7km ESE	Heard	6	Explosion	Undetermined	N/K	19-Jul, 06:30	



5-7km ESE	Heard	1	Explosion	Undetermined	N/K	19-Jul, 06:38
5-7km ESE	Heard	1	Explosion	Undetermined	N/K	19-Jul, 06:39
5-7km ESE	Heard	20	Burst		HMG	19-Jul, 06:39
5-7km ESE	Heard	4	Explosion	Undetermined	N/K	19-Jul, 06:40
5-7km ESE	Heard	20	Burst		HMG	19-Jul, 06:40
5-7km ESE	Heard	1	Explosion	Undetermined	N/K	19-Jul, 06:41
5-7km ESE	Heard	15	Burst		HMG	19-Jul, 06:42
5-7km ESE	Heard	1	Explosion	Undetermined	N/K	19-Jul, 06:43
5-7km ESE	Heard	15	Burst		HMG	19-Jul, 06:43
5-7km ESE	Heard	3	Explosion	Undetermined	N/K	19-Jul, 06:44
5-7km ESE	Heard	36	Burst		HMG	19-Jul, 06:44
5-7km ESE	Heard	2	Explosion	Undetermined	N/K	19-Jul, 06:45
5-7km ESE	Heard	2	Explosion	Undetermined	N/K	19-Jul, 06:47
5-7km ESE	Heard	3	Explosion	Undetermined	N/K	19-Jul, 06:48
5-7km ESE	Heard	6	Burst		HMG	19-Jul, 06:48
5-7km ESE	Heard	3	Explosion	Undetermined	N/K	19-Jul, 06:51
5-7km ESE	Heard	15	Burst		HMG	19-Jul, 06:50-06:51
ESE	Heard		Burst	Uncountable, overlapping	HMG	19-Jul, 06:52-06:53
1-2km ESE	Heard	6	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 06:54-06:55
1-2km ESE	Heard	8	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 06:56-06:58
ESE	Heard		Burst	Uncountable, overlapping	HMG	19-Jul, 06:56-06:58
1-2km N	Heard	25	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 06:59-07:08
1-2km E	Heard	25	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 07:10-07:15
ESE	Heard		Burst	Uncountable, overlapping	HMG	19-Jul, 07:10-07:15
1-2km N	Heard	2	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 07:17
5-7km ESE	Heard	15	Burst		HMG	19-Jul, 07:19
1-2km N	Heard	3	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 07:27
1-2km N	Heard	6	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 07:31
1-2km ESE	Heard	1	Explosion	Impact	N/K	19-Jul, 07:32
1-2km ESE	Heard	1	Explosion	Impact	N/K	19-Jul, 07:34
1-2km N	Heard	1	Explosion	Impact	N/K	19-Jul, 07:34

1-2km N	Heard	1	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 07:39
5-7km ESE	Heard	1	Explosion	Impact	N/K	19-Jul, 07:39
1-2km N	Heard	1	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 07:44
5-7km ESE	Heard	1	Explosion	Impact	N/K	19-Jul, 07:44
1-2km ESE	Heard	2	Explosion	Undetermined	N/K	19-Jul, 07:48
1-2km SE	Heard	2	Explosion	Undetermined	N/K	19-Jul, 07:51
1-2km N	Heard	1	Explosion	Outgoing	Artillery (type N/K)	19-Jul, 08:02
5-7km ESE	Heard	23	Burst		HMG	19-Jul, 08:12
5-7km ESE	Heard	8	Burst		HMG	19-Jul, 08:15
5-7km ESE	Heard	1	Explosion	Undetermined	N/K	19-Jul, 09:35
3-4km E	Heard	1	Explosion	Impact	N/K	19-Jul, 09:42
4-6km SW	Heard	22	Explosion	Undetermined	N/K	19-Jul, 14:30-14:50
4-6km SW	Heard	45	Burst		HMG	19-Jul, 14:40-14:50
5-7km E	Heard	6	Explosion	Undetermined	N/K	19-Jul, 18:00-18:08
2-3km N	Heard	4	Explosion	Outgoing	N/K	19-Jul, 18:09-18:12
5-7km ESE	Heard	4	Explosion	Impact	N/K	19-Jul, 18:09-18:12
2-3km E	Heard	4	Explosion	Outgoing	N/K	19-Jul, 18:09-18:12
6-7km ESE	Heard	4	Explosion	Impact	N/K	19-Jul, 18:09-18:12
2-3km E	Heard	8	Explosion	Outgoing	N/K	19-Jul, 18:13
5-7km ESE	Heard	8	Explosion	Impact	N/K	19-Jul, 18:13
2-3km E	Heard	15	Explosion	Outgoing	N/K	19-Jul, 18:15-18:18
6-7km ESE	Heard	15	Explosion	Impact	N/K	19-Jul, 18:15-18:18
5-6km E	Heard	3	Explosion	Undetermined	N/K	19-Jul, 18:21-18:23
3-4km ESE	Heard	1	Explosion	Outgoing	N/K	19-Jul, 18:25
5-7km ESE	Heard	1	Explosion	Impact	N/K	19-Jul, 18:25
5-7km ESE	Heard	18	Burst		HMG	19-Jul, 18:25
3-4km E	Heard	5	Explosion	Outgoing	N/K	19-Jul, 18:27-18:30
6-8km E	Heard	5	Explosion	Impact	N/K	19-Jul, 18:27-18:30

SMM camera in Kriakivka (government-controlled, 38km NW of Luhansk)	3-5km SSW	Recorded	1	Muzzle flash	SSW to NNE	N/K	19-Jul, 23:48
	3-5km SSW	Recorded	1	Projectile	SSW to NNE (subsequent to the previous event)	N/K	19-Jul, 23:48
	3-5km SSW	Recorded	1	Explosion	SSW to NNE (airburst, subsequent to the previous event )	N/K	19-Jul, 23:48
	3-5km ESE	Recorded	1	Explosion	Airburst	N/K	18-Jul, 23:51
	3-4km SE	Recorded	1	Projectile	NNE to SSW	N/K	18-Jul, 23:51
	6-8km SSE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 23:54
	3-5km ESE	Recorded	1	Projectile	SW to NE	N/K	18-Jul, 23:54
	3-5km ESE	Recorded	1	Explosion	Airburst (subsequent to previous event)	N/K	18-Jul, 23:54
	6-8km SE	Recorded	1	Explosion	Undetermined	N/K	18-Jul, 23:59
	3-5km ESE	Recorded	2	Projectile	SW to NE	N/K	19-Jul, 00:10
	3-5km ESE	Recorded	1	Projectile	NW to SE	N/K	19-Jul, 00:10
	6-8km SE	Recorded	2	Explosion	Undetermined	N/K	19-Jul, 00:11
	3-5km ESE	Recorded	4	Projectile	SW to NE	N/K	19-Jul, 00:11
	3-4km ESE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 01:07
	6-8km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 01:08
	6-8km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 01:10
	6-8km SE	Recorded	2	Explosion	Undetermined	N/K	19-Jul, 01:11
	6-8km SE	Recorded	2	Explosion	Undetermined	N/K	19-Jul, 01:13
	3-5km ESE	Recorded	4	Projectile	NNE to SSW	N/K	19-Jul, 01:13
	3-5km ESE	Recorded	1	Explosion	Airburst (subsequent to previous event)	N/K	19-Jul, 01:13
	3-5km SE	Recorded	4	Projectile	W to E	N/K	19-Jul, 01:21
	3-5km ESE	Recorded	2	Explosion	Impact (subsequent to previous event)	N/K	19-Jul, 01:21
	4-6km SE	Recorded	2	Muzzle flash		N/K	19-Jul, 01:22
4-6km SE	Recorded	4	Projectile	W to E (subsequent to the previous event)	N/K	19-Jul, 01:22	

	4-6km ESE	Recorded	4	Explosion	Impact (subsequent to previous event, assessed as outside the disengagement area near Zolote)	N/K	19-Jul, 01:22
	4-6km SE	Recorded	11	Projectile	W to E	N/K	19-Jul, 01:23
	4-6km ESE	Recorded	11	Explosion	Impact (subsequent to previous event, assessed as outside the disengagement area near Zolote)	N/K	19-Jul, 01:23
	4-6km SE	Recorded	4	Projectile	W to E	N/K	19-Jul, 01:24
	4-6km ESE	Recorded	12	Explosion	Impact (subsequent to previous event, assessed as outside the disengagement area near Zolote)	N/K	19-Jul, 01:24
	6-8km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 01:31
	6-8km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 01:35
	6-8km SE	Recorded	1	Explosion	Undetermined	N/K	19-Jul, 01:41
SMM camera in Zolote (government-controlled, 60km W of Luhansk)	4-6km E	Recorded	1	Illumination flare	In vertical flight (assessed as outside the disengagement area)	N/K	18-Jul, 22:20
	4-6km E	Recorded	9	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	18-Jul, 22:29
	4-6km E	Recorded	3	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	18-Jul, 22:42

4-6km E	Recorded	4	Projectile	SW to NE (assessed as outside the disengagement area)	N/K	18-Jul, 22:43
4-6km E	Recorded	2	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	18-Jul, 22:45
4-6km E	Recorded	3	Projectile	NW to SE (in vertical flight, assessed as outside the disengagement area)	N/K	18-Jul, 22:47
4-6km E	Recorded	1	Illumination flare	Assessed as outside the disengagement area	N/K	18-Jul, 22:47
4-6km E	Recorded	8	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	18-Jul, 23:00
4-6km E	Recorded	1	Illumination flare	In vertical flight (assessed as outside the disengagement area)	N/K	18-Jul, 23:12
4-6km E	Recorded	3	Projectile	SW to NE (assessed as outside the disengagement area)	N/K	18-Jul, 23:21
4-6km E	Recorded	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	18-Jul, 23:22
4-6km E	Recorded	13	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	18-Jul, 23:54

	4-6km E	Recorded	1	Projectile	NW to SE (assessed as outside the disengagement area)	N/K	18-Jul, 23:55
	4-6km E	Recorded	13	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	19-Jul, 00:00
	4-6km E	Recorded	8	Projectile	NNE to SSW (assessed as outside the disengagement area)	N/K	19-Jul, 00:25
	4-6km E	Recorded	5	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	19-Jul, 00:26
	4-6km E	Recorded	6	Projectile	NNW to SSE (assessed as outside the disengagement area)	N/K	19-Jul, 01:18
N edge of Popasna (government- controlled, 69km W of Luhansk)	5-7km SSE	Heard	2	Explosion	Undetermined	N/K	18-Jul, 18:26- 18:28
	8-10km SSE	Heard	2	Explosion	Undetermined	N/K	18-Jul, 21:21- 21:22
	5-7km ESE	Heard	14	Burst	Assessed as outside the disengagement area near Zolote	HMG	18-Jul, 23:00
	5-7km ESE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	18-Jul, 23:00
	5-7km ESE	Heard	1	Explosion	Undetermined	N/K	18-Jul, 23:04
	5-7km ESE	Heard	45	Burst	Assessed as outside the disengagement area near Zolote	HMG	18-Jul, 23:25- 23:26

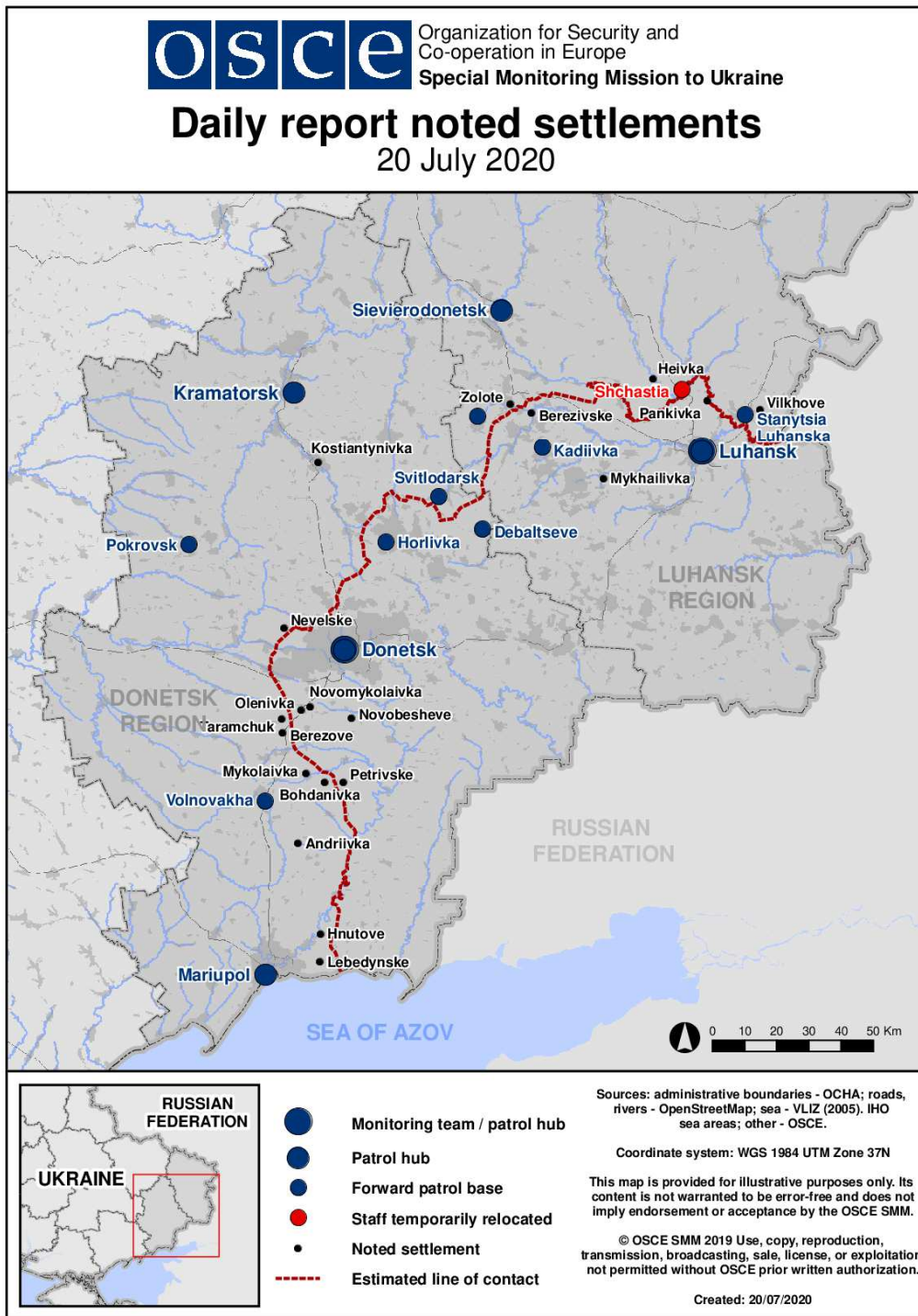
5-7km ESE	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	18-Jul, 23:26-23:27
5-7km ESE	Heard	8	Burst	Assessed as outside the disengagement area near Zolote	HMG	18-Jul, 23:33
5-7km ESE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	18-Jul, 23:40
5-7km ESE	Heard	30	Burst	Assessed as outside the disengagement area near Zolote	HMG	18-Jul, 23:40
5-7km ESE	Heard	7	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	18-Jul, 23:40-23:45
5-7km ESE	Heard	37	Burst	Assessed as outside the disengagement area near Zolote	HMG	18-Jul, 23:50
5-7km ESE	Heard	4	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	18-Jul, 23:52
5-7km ESE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	18-Jul, 23:57
5-7km ESE	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	19-Jul, 00:05

	5-7km ESE	Heard	8	Burst	Assessed as outside the disengagement area near Zolote	HMG	19-Jul, 00:10
	5-7km ESE	Heard	5	Shot	Assessed as outside the disengagement area near Zolote	HMG	19-Jul, 00:10
	5-7km ESE	Heard	63	Shot and Burst	Assessed as outside the disengagement area near Zolote	Small arms	19-Jul, 00:11-00:25
	5-7km ESE	Heard	35	Explosion	Undetermined (assessed as outside the disengagement area near Zolote)	N/K	19-Jul, 00:12-01:05
	5-7km ESE	Heard	32	Burst	Assessed as outside the disengagement area near Zolote	HMG	19-Jul, 00:37-00:43
	5-8km ESE	Heard	130	Shot and Burst	Assessed as outside the disengagement area near Zolote	Small arms	19-Jul, 00:46-01:14
	5-7km ESE	Heard	3	Shot and Burst	Assessed as outside the disengagement area near Zolote	Small arms	19-Jul, 01:19
Kadiivka (formerly Stakhanov, non-government-controlled, 50km W of Luhansk)	10-15km N	Heard	62	Explosion	Undetermined	N/K	18-Jul, 20:50-21:24
	10-15km NNE	Heard	52	Explosion	Undetermined	N/K	18-Jul, 20:50-21:24
	10-15km N	Heard	22	Explosion	Undetermined	N/K	19-Jul, 05:23-05:38
	10-15km NW	Heard	15	Explosion	Undetermined (unable to assess if inside or outside the disengagement area)	N/K	19-Jul, 05:23-05:38
	5km NNE	Heard	16	Explosion	Outgoing	N/K	19-Jul, 05:23-05:38



	10-15km N	Heard	11	Explosion	Undetermined	N/K	19-Jul, 05:49-06:05
	5km NNE	Heard	23	Explosion	Outgoing	N/K	19-Jul, 05:49-06:05
	5km NNE	Heard	5	Explosion	Outgoing	N/K	19-Jul, 06:23-06:38

### Map of Donetsk and Luhansk regions<sup>10</sup>



<sup>10</sup> The SMM is deployed to ten locations throughout Ukraine – Kherson, Odessa, Lviv, Ivano-Frankivsk, Kharkiv, Donetsk, Dnipro, Chernivtsi, Luhansk and Kyiv – as per Permanent Council Decision 1117 of 21 March 2014. This map of eastern Ukraine is meant for illustrative purposes and indicates locations mentioned in the report, as well as those where the SMM has offices (monitoring teams, patrol hubs, and forward patrol bases) in Donetsk and Luhansk regions. (In red: 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).