SMM position	<b>Event location</b>	Means	No.	Observation	Description	Weapon	Date, time
SMM camera in	3-5km SSE	Recorded	6	Projectile	WSW to ENE	N/K	12-Oct, 22:29
Chermalyk	3-5km S	Recorded	15	Projectile	WSW to ENE	N/K	12-Oct, 22:30
(government-	3-5km S	Recorded	15	Explosion	Undetermined	N/K	12-Oct, 22:30
controlled, 31km	3-5km S	Recorded	12	Projectile	WSW to ENE	N/K	12-Oct, 22:30
NE of Mariupol)	3-5km S	Recorded	8	Projectile	WSW to ENE	N/K	12-Oct, 22:31 12-Oct, 22:32
1 /	3-5km S	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:32
	3-5km S	Recorded	4	Projectile	WSW to ENE	N/K	12-Oct, 22:32
	3-5km SSE	Recorded	1	Projectile	ENE to WSW	N/K	12-Oct, 22:33
	3-5km SSE	Recorded	5	Projectile	NNW to SSE	N/K	12-Oct, 22:30
	3-5km SSE	Recorded	3	Muzzle flash	INTO DODE	N/K	12-Oct, 23:02
	3-5km SSE	Recorded	8	Projectile	ENE to WSW	N/K	12-Oct, 23:02
	3-5km SE	Recorded	3	Projectile	NE to SW	N/K	12-Oct, 23:10
	3-5km S	Recorded	2	Projectile	WSW to ENE	N/K	12-Oct, 25:10 13-Oct, 00:07
	3-5km SSE	Recorded	3	Projectile	WSW to ENE	N/K	13-Oct, 00:15
	3-5km S	Recorded	3	Projectile	WSW to ENE	N/K	13-Oct, 00:17
	3-5km S	Recorded	1	Muzzle flash	WOW TO LIVE	N/K	13-Oct, 00:17
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K N/K	13-Oct, 00:17
	3-5km SSE	Recorded	5	Projectile	WSW to ENE	N/K N/K	13-Oct, 00:20
	3-5km SSE	Recorded	6	Projectile	WSW to ENE	N/K N/K	13-Oct, 00:20
		Recorded	2	Projectile	WSW to ENE WSW to ENE	N/K N/K	,
	3-5km SSE	Recorded	Z	3	WSW IO EINE	IN/K	13-Oct, 00:22
	3-5km S	Recorded	1	Illumination flare	In vertical flight	N/K	13-Oct, 02:10
	3-5km SSE	Recorded	3	Projectile	WSW to ENE	N/K	13-Oct, 02:26
	3-5km SSE	Recorded	6	Projectile	WSW to ENE	N/K	13-Oct, 02:27
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	13-Oct, 02:28
	3-5km SSE	Recorded	2	Projectile	WSW to ENE	N/K	13-Oct, 02:29
	3-5km SSE	Recorded	6	Projectile	WSW to ENE	N/K	13-Oct, 02:30
	3-5km SSE	Recorded	5	Projectile	WSW to ENE	N/K	13-Oct, 02:31
	3-5km SSE	Recorded	1	Muzzle flash		N/K	13-Oct, 02:31
	3-5km SSE	Recorded	6	Projectile	WSW to ENE	N/K	13-Oct, 02:32
	3-5km SSE	Recorded	4	Projectile	ENE to WSW	N/K	13-Oct, 02:37
	3-5km S	Recorded	10	Projectile	WSW to ENE	N/K	13-Oct, 04:47
	3-5km S	Recorded	13	Projectile	WSW to ENE	N/K	13-Oct, 04:48
	3-5km SSE	Recorded	3	Projectile	WSW to ENE	N/K	13-Oct, 05:30
	3-5km SSE	Recorded	7	Projectile	WSW to ENE	N/K	13-Oct, 05:31
	3-5km SSE	Recorded	1	Projectile	WSW to ENE	N/K	13-Oct, 05:52
	3-5km SSE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 05:52
SMM camera at	3-5km SSW	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 19:14
Donetsk Filtration	1-3km SSW	Recorded	3	Projectile	W to E	N/K	12-Oct, 20:10
Station (15km N	0.5-1km SSW	Recorded	1	Projectile	W to E	N/K	12-Oct, 20:10
of Donetsk)	1-3km SSW	Recorded	2	Projectile	W to E	N/K	12-Oct, 20:26
	1-3km SSW	Recorded	1	Projectile	W to E	N/K	12-Oct, 20:34
	1-3km S	Recorded	3	Projectile	E to W	N/K	12-Oct, 22:19
	1-3km SSE	Recorded	1	Projectile	E to W	N/K	12-Oct, 22:30
	1-3km SSW	Recorded	1	Explosion	Impact	N/K	12-Oct, 23:55
	1-3km SSW	Recorded	2	Projectile	W to E	N/K	13-Oct, 00:09
	1-3km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 00:19
	1-3km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 00:25
	1-3km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 00:44
	1-3km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 00:45
	1-3km S	Recorded	1	Projectile	W to E	N/K	13-Oct, 00:57
	1-3km SSW	Recorded	1	Explosion	Impact	N/K	13-Oct, 01:44
	1-3km SSW	Recorded	1	Illumination	In vertical flight	N/K	13-Oct, 03:17
	1-3KIII 33 W	Recorded	1	munimation	in vertical night	1N/K	13-00, 05:17

## Table of ceasefire violations as of 14 October 2018<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The table only includes ceasefire violations directly observed by the SMM and it may include those also assessed to be live-fire exercises, controlled detonations, etc. Details provided – in terms of distance, direction, weapons-type, etc. – are based on assessments provided by monitors on the ground, and are not always necessarily precise. When information is not known (indicated with an "N/K"), the SMM was unable to ascertain such information due to distance, weather conditions and/or other considerations. Ceasefire violations recorded by more than one patrol and assessed to be the same are entered only once.

[]				flare	1	ĺ	I
-	1-3km SSW	Recorded	3	Projectile	W to E	N/K	13-Oct, 03:17
-	1-3km SSW	Recorded	3	Projectile	W to E	N/K	13-Oct, 03:18
-	1-3km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 03:39
	1-3km SSW	Recorded	8	Projectile	W to E	N/K	13-Oct, 03:40
	1-3km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 04:17
	1-3km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 04:20
SMM camera	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 18:16
1.5km NE of	2-4km E	Recorded	5	Projectile	N to S	N/K	12-Oct, 18:41
Hnutove	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 18:42
(government-	2-4km ENE	Recorded	3	Projectile	N to S	N/K	12-Oct, 19:51
controlled, 20km	2-4km E	Recorded	12	Projectile	NW to SE	N/K	12-Oct, 20:26
NE of Mariupol)	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 20:27
	2-4km E	Recorded	9	Projectile	N to S	N/K	12-Oct, 20:30
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 20:30
	2-4km E	Recorded	7	Projectile	NNW to SSE	N/K	12-Oct, 20:31
	2-4km ESE	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 20:31
-	2-4km E	Recorded	7	Projectile	NW to SE	N/K	12-Oct, 20:33
-	2-4km ESE	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 20:41
-	2-4km ESE	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 20:48
-	2-4km ESE	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 20:48
-	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 20:49
	2-4km ESE	Recorded	8	Projectile	SW to NE	N/K	12-Oct, 20:49
-	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 20:50
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 20:51
-	2-4km ESE	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 20:48
	2-4km ESE	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 20:48
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 20:49
	2-4km ESE	Recorded	8	Projectile	SW to NE	N/K	12-Oct, 20:49
-	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 20:50
-	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 20:51
-	2-4km E	Recorded	15	Projectile	NW to SE	N/K	12-Oct, 20:57
	2-4km E	Recorded	9	Projectile	SW to NE	N/K	12-Oct, 20:57
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 20:58
	2-4km ESE	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 20:58
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 21:00
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 21:04
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 21:06
	2-4km ESE	Recorded	10	Projectile	SW to NE	N/K	12-Oct, 21:07
	2-4km ESE	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 21:08
	2-4km E	Recorded	11	Projectile	NW to SE	N/K	12-Oct, 21:09
	2-4km ESE	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 21:10
	2-4km ESE	Recorded	6	Projectile	SW to NE	N/K	12-Oct, 21:11
	2-4km ESE	Recorded	9	Projectile	SW to NE	N/K	12-Oct, 21:12
	2-4km ESE	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 21:14
	2-4km ESE	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 21:15
	2-4km ESE	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 21:18
	2-4km E	Recorded	4	Projectile	E to W	N/K	12-Oct, 21:19
Ī	2-4km E	Recorded	1	Explosion	Outgoing	N/K	12-Oct, 21:19
Ē	2-4km E	Recorded	3	Projectile	SW to NE	N/K	12-Oct, 21:20
Ī	2-4km E	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 21:22
Ī	2-4km E	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 21:25
Ī	2-4km E	Recorded	22	Projectile	SW to NE	N/K	12-Oct, 21:28
Ī	2-4km E	Recorded	6	Projectile	SW to NE	N/K	12-Oct, 21:29
	2-4km E	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 21:30
ſ	2-4km E	Recorded	17	Projectile	NW to SE	N/K	12-Oct, 21:34
Ī	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 21:34
Ī	2-4km E	Recorded	11	Projectile	SW to NE	N/K	12-Oct, 21:35
Ī	2-4km E	Recorded	6	Projectile	NW to SE	N/K	12-Oct, 21:35
Ē	2-4km E	Recorded	6	Projectile	SW to NE	N/K	12-Oct, 21:37
Ē	2-4km E	Recorded	2	Projectile	NW to SE	N/K	12-Oct, 21:37
Ī	2-4km E	Recorded	16	Projectile	SW to NE	N/K	12-Oct, 21:39
	2-4km E	Recorded	43	Projectile	SW to NE	N/K	12-Oct, 21:40
	2-4KIII L	Recolucu	45	rojeetiie		1011	12 000, 21.10

	0 (I F	<b>D</b> 1 1		D		NT/17	
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 21:43
	2-4km E	Recorded	23	Projectile	SW to NE	N/K	12-Oct, 21:44
F	2-4km E	Recorded	5	Projectile	NW to SE	N/K	12-Oct, 21:44
-	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 21:45
F	2-4km E	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 21:47
-	2-4km E	Recorded	2	Projectile	NW to SE	N/K	12-Oct, 21:47
_	2-4km E	Recorded	3	Projectile	NW to SE	N/K	12-Oct, 21:48
	2-4km E	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 21:49
Ļ	2-4km E	Recorded	12	Projectile	SW to NE	N/K	12-Oct, 21:50
_	2-4km E	Recorded	10	Projectile	SW to NE	N/K	12-Oct, 21:51
	2-4km E	Recorded	3	Projectile	SW to NE	N/K	12-Oct, 21:52
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 21:53
	2-4km E	Recorded	9	Projectile	N to S	N/K	12-Oct, 21:53
	2-4km E	Recorded	9	Projectile	NW to SE	N/K	12-Oct, 21:54
	2-4km E	Recorded	5	Projectile	NW to SE	N/K	12-Oct, 21:58
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 21:58
	2-4km E	Recorded	6	Projectile	SW to NE	N/K	12-Oct, 21:59
	2-4km E	Recorded	15	Projectile	NW to SE	N/K	12-Oct, 22:00
	2-4km E	Recorded	8	Projectile	SW to NE	N/K	12-Oct, 22:00
	2-4km E	Recorded	2	Projectile	NNW to SSE	N/K	12-Oct, 22:01
	2-4km E	Recorded	7	Projectile	SW to NE	N/K	12-Oct, 22:01
F	2-4km ENE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:01
Ē	2-4km E	Recorded	2	Projectile	NW to SE	N/K	12-Oct, 22:02
Ē	2-4km E	Recorded	1	Explosion	Impact	N/K	12-Oct, 22:02
F	2-4km E	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 22:05
F	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:05
F	2-4km E	Recorded	8	Projectile	SW to NE	N/K	12-Oct, 22:06
	2-4km E	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 22:07
	2-4km E	Recorded	12	Projectile	SW to NE	N/K	12-Oct, 22:08
	2-4km E	Recorded	6	Projectile	SW to NE	N/K	12-Oct, 22:12
	2-4km E	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 22:12
F	2-4km E	Recorded	7	Projectile	SW to NE	N/K	12-Oct, 22:13
F	2-4km E	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 22:13
F	2-4km E	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 22:15
F	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 22:15
-	2-4km E	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 22:18
-	2-4km E 2-4km E	Recorded	27	Projectile	NW to SE	N/K	12-Oct, 22:18
-	2-4km E 2-4km E	Recorded	9	Projectile	SW to NE	N/K	12-Oct, 22:10
	2-4km E 2-4km E	Recorded	11	Projectile	SW to NE	N/K	12-Oct, 22:19
-	2-4km E 2-4km E	Recorded	7	Projectile	SW to NE	N/K	12-Oct, 22:20
-	2-4km E	Recorded	3	Projectile	NW to SE	N/K N/K	12-Oct, 22:21 12-Oct, 22:28
F			-				
F	2-4km E	Recorded	8 25	Projectile Projectile	NW to SE	N/K N/K	12-Oct, 22:29 12-Oct, 22:29
F	2-4km E	Recorded		Projectile	SW to NE	N/K	,
F	2-4km E	Recorded	50	Projectile	SW to NE	N/K	12-Oct, 22:30
F	2-4km E	Recorded	15	Projectile	NW to SE	N/K	12-Oct, 22:30
F	2-4km E	Recorded	5	Projectile	NW to SE	N/K	12-Oct, 22:31
F	2-4km E	Recorded	24	Projectile	SW to NE	N/K	12-Oct, 22:31
F	2-4km E	Recorded	4	Projectile	NW to SE	N/K	12-Oct, 22:32
F	2-4km E	Recorded	41	Projectile	SW to NE	N/K	12-Oct, 22:32
F	2-4km E	Recorded	3	Projectile	NW to SE	N/K	12-Oct, 22:33
Ļ	2-4km E	Recorded	6	Projectile	SW to NE	N/K	12-Oct, 22:33
Ļ	2-4km E	Recorded	6	Projectile	SW to NE	N/K	12-Oct, 22:36
Ļ	2-4km E	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:36
Ļ	2-4km E	Recorded	2	Projectile	NW to SE	N/K	12-Oct, 22:37
Ļ	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 22:37
Ļ	2-4km E	Recorded	1	Projectile	SW to NE	N/K	12-Oct, 22:40
Ļ	2-4km E	Recorded	13	Projectile	SW to NE	N/K	12-Oct, 22:41
	2-3km E	Recorded	1	Projectile	NW to SE	N/K	12-Oct, 22:41
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 22:43
	2-4km E	Recorded	5	Projectile	NW to SE	N/K	12-Oct, 22:43
	2-4km E	Recorded	5	Projectile	SW to NE	N/K	12-Oct, 22:45
	2-4km E	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 22:45
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 22:46
	2-4km E	Recorded	7	Projectile	SW to NE	N/K	12-Oct, 22:47

	2-4km E	Recorded	4	Projectile	SW to NE	N/K	12-Oct, 22:57
	2-4km E	Recorded	38	Projectile	NW to SE	N/K	12-Oct, 23:02
	2-4km E	Recorded	3	Projectile	NW to SE	N/K	12-Oct, 23:10
	2-4km E	Recorded	5	Projectile	NW to SE	N/K	12-Oct, 23:27
				0			
	2-4km E	Recorded	3	Projectile	SW to NE	N/K	12-Oct, 23:29
	2-4km E	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 23:30
	2-4km E	Recorded	2	Projectile	NW to SE	N/K	12-Oct, 23:50
	2-4km E	Recorded	2	Projectile	SW to NE	N/K	13-Oct, 00:06
	2-4km E	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 00:06
	2-4km E	Recorded	8	Projectile	NW to SE	N/K	13-Oct, 00:09
	2-4km E	Recorded	8	Projectile	SW to NE	N/K	13-Oct, 00:23
	2-4km E	Recorded	11	Projectile	SW to NE	N/K	13-Oct, 00:24
	2-4km E	Recorded	7	Projectile	NW to SE	N/K	13-Oct, 00:45
	2-4km E	Recorded	5	Projectile	SW to NE	N/K	13-Oct, 00:43
	2-4km E	Recorded	3	Projectile	SW to NE	N/K	13-Oct, 00:47
				0			,
	2-4km E	Recorded	7	Projectile	SW to NE	N/K	13-Oct, 00:50
	2-4km E	Recorded	2	Projectile	SW to NE	N/K	13-Oct, 00:54
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	13-Oct, 01:49
	2-4km E	Recorded	2	Projectile	SW to NE	N/K	13-Oct, 01:55
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	13-Oct, 01:56
	2-4km E	Recorded	1	Projectile	NW to SE	N/K	13-Oct, 02:01
	2-4km ENE	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 02:07
	2-4km ENE	Recorded	1	Projectile	NW to SE	N/K	13-Oct, 02:10
							,
	2-4km ENE	Recorded	1	Explosion	Outgoing	N/K	13-Oct, 02:10
	2-4km ENE	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 02:29
	2-4km ENE	Recorded	1	Projectile	NW to SE	N/K	13-Oct, 02:30
	2-4km ENE	Recorded	3	Projectile	NW to SE	N/K	13-Oct, 02:33
	2-4km E	Recorded	5	Projectile	NW to SE	N/K	13-Oct, 02:34
	2-4km E	Recorded	7	Explosion	Undetermined	N/K	13-Oct, 02:34
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	13-Oct, 02:38
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	13-Oct, 04:19
	2-4km E	Recorded	3	Projectile	NW to SE	N/K	13-Oct, 04:19
	2-4km E	Recorded	8	Projectile	SW to NE	N/K	13-Oct, 04:20
	2-4km ENE	Recorded	4	5	SW to NE	N/K N/K	
				Projectile			13-Oct, 04:27
	2-4km E	Recorded	3	Projectile	NW to SE	N/K	13-Oct, 04:27
	2-4km ENE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 04:27
	2-4km E	Recorded	1	Projectile	SW to NE	N/K	13-Oct, 04:29
	2-4km E	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 04:30
	2-4km E	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 05:07
	2-4km E	Recorded	4	Projectile	SW to NE	N/K	13-Oct, 05:18
	2-4km E	Recorded	3	Projectile	In vertical flight	N/K	13-Oct, 17:47
	2-4km E	Recorded	3	Projectile	N to S	N/K	13-Oct, 17:48
	2-4km E	Recorded	1	Projectile	In vertical flight	N/K	13-Oct, 17:48
SMM comoro in	0.1-0.5km SSW		1	0	Undetermined	N/K N/K	
SMM camera in		Recorded		Explosion			12-Oct, 19:32
Kriakivka	2-4km SSW	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:55
(government-	2-4km SSW	Recorded	1	Projectile	W to E	N/K	13-Oct, 03:20
controlled, 38km	2-4km SSW	Recorded	3	Explosion	Undetermined	N/K	13-Oct, 03:20
NW of Luhansk)				-			
SMM camera E of	2-4km NE	Recorded	1	Projectile	NW to SE	N/K	12-Oct, 20:19
Lomakyne		Recorded	1	Explosion	Undetermined	N/K	12-Oct, 20:19
(government-	2-4km NE						10 0 1 00 50
	2-4km NE 2-4km NE	Recorded	1	Projectile	NW to SE	N/K	12-Oct, 20:52
controlled, 15km			1	Projectile Projectile	NW to SE NW to SE	N/K N/K	12-Oct, 20:52 12-Oct, 20:56
controlled, 15km NE of Mariupol)	2-4km NE 2-4km NE	Recorded Recorded		Projectile	NW to SE	N/K	12-Oct, 20:56
	2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded	1	Projectile Projectile	NW to SE NW to SE	N/K N/K	12-Oct, 20:56 12-Oct, 20:57
	2-4km NE 2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded	1 1 1	Projectile Projectile Explosion	NW to SE NW to SE Undetermined	N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded	1 1 1 1	Projectile Projectile Explosion Muzzle flash	NW to SE NW to SE Undetermined Undetermined	N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1	Projectile Projectile Explosion Muzzle flash Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NW	N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1 1	Projectile Projectile Explosion Muzzle flash Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWSE to NW	N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km ENE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1 1 1 1	Projectile Projectile Explosion Muzzle flash Projectile Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWSE to NWNW to SE	N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36 12-Oct, 21:38
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1 1	Projectile Projectile Explosion Muzzle flash Projectile Projectile Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWSE to NW	N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km ENE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1 1 1 1	Projectile Projectile Explosion Muzzle flash Projectile Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWSE to NWNW to SE	N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36 12-Oct, 21:38
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km ENE 2-4km ENE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1 1 1 2	Projectile Projectile Explosion Muzzle flash Projectile Projectile Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWSE to NWNW to SESE to NW	N/K N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36 12-Oct, 21:38 12-Oct, 21:38 12-Oct, 21:41
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km ENE 2-4km NE 2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1 1 1 2 10	Projectile Projectile Explosion Muzzle flash Projectile Projectile Projectile Projectile Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWNW to SESE to NWNW to SENW to SENW to SENW to SENW to SENW to SENW to SE	N/K N/K N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36 12-Oct, 21:38 12-Oct, 21:38 12-Oct, 21:41 12-Oct, 21:42
	2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	$ \begin{array}{c} 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 0\\ 4\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\$	Projectile Projectile Explosion Muzzle flash Projectile Projectile Projectile Projectile Projectile Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWNW to SESE to NWNW to SENW to SENW to SENW to SEIn vertical flight	N/K N/K N/K N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36 12-Oct, 21:38 12-Oct, 21:38 12-Oct, 21:41 12-Oct, 21:42 12-Oct, 21:50
	2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km NE 2-4km ENE 2-4km NE 2-4km NE 2-4km NE 2-4km NE	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	1 1 1 1 1 1 1 2 10 4	Projectile Projectile Explosion Muzzle flash Projectile Projectile Projectile Projectile Projectile Projectile	NW to SENW to SEUndeterminedUndeterminedSE to NWNW to SESE to NWNW to SENW to SENW to SENW to SENW to SENW to SENW to SE	N/K N/K N/K N/K N/K N/K N/K N/K	12-Oct, 20:56 12-Oct, 20:57 12-Oct, 21:00 12-Oct, 21:24 12-Oct, 21:24 12-Oct, 21:36 12-Oct, 21:38 12-Oct, 21:38 12-Oct, 21:41 12-Oct, 21:42

					1		
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:00
	2-4km NE	Recorded	1	Projectile	NW to SE	N/K	12-Oct, 22:00
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:01
	2-4km NE	Recorded	10	Explosion	Undetermined	N/K	12-Oct, 22:29
	2-4km NE	Recorded	13	Explosion	Undetermined	N/K	12-Oct, 22:30
	2-4km NE	Recorded	6	Projectile	NW to SE	N/K	12-Oct, 22:30
	2-4km NE	Recorded	10	Explosion	Undetermined	N/K	12-Oct, 22:31
	2-4km NE	Recorded	1	Projectile	NW to SE	N/K	12-Oct, 22:31
	2-4km NE	Recorded	9	Projectile	NW to SE	N/K	12-Oct, 22:32
	2-4km NE	Recorded	6	Explosion	Undetermined	N/K	12-Oct, 22:32
	2-4km NE	Recorded	1	Projectile	NW to SE	N/K	12-Oct, 22:33
	2-4km NE	Recorded	3	Explosion	Undetermined	N/K	12-Oct, 22:33
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:36
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 22:43
	2-4km NE	Recorded	2	Projectile	SE to NW	N/K	12-Oct, 23:07
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 23:07
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 01:22
	2-4km NE	Recorded	4	Explosion	Undetermined	N/K	13-Oct, 01:26
	2-4km NE	Recorded	3	Projectile	NW to SE	N/K	13-Oct, 01:35
	2-4km NE	Recorded	3	Explosion	Airburst	N/K	13-Oct, 01:35
	2-4km NE	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 01:44
	2-4KIII INE	Recorded	2	Illumination	Undetermined		15-001, 01.44
	2-4km ENE	Recorded	1	flare	In vertical flight	N/K	13-Oct, 02:10
	2-4km NE	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 02:32
	2-4km NE	Recorded	9	Projectile	NW to SE	N/K	13-Oct, 02:32
	2-4km NE	Recorded	1	Projectile	NW to SE	N/K	13-Oct, 04:16
	2-4km NE	Recorded	2	Muzzle flash		N/K	13-Oct, 04:17
	2-4km NE	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 04:17
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 04:17
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 04:20
	2-4km NE	Recorded	3	Projectile	NW to SE	N/K	13-Oct, 04:21
	2-4km NE	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 04:22
	2-4km NE	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 04:22
	2-4km NE	Recorded	4	Explosion	Undetermined	N/K	13-Oct, 04:46
	2-4km NE	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 04:46
	2-4km NE	Recorded	1	Burst	NW to SE	N/K	13-Oct, 04:46
	2-4km NE	Recorded	6	Projectile	NW to SE	N/K	13-Oct, 04:47
	2-4km NE	Recorded	1	Burst	NW to SE	N/K	13-Oct, 04:47
	2-4km NE	Recorded	5	Projectile	NW to SE	N/K	13-Oct, 04:48
	2-4km NE	Recorded	1	Burst	NW to SE	N/K	13-Oct, 04:48
	2-4km NE			Muzzle flash	INW ID SE	N/K N/K	13-Oct, 05:03
			4		NW to SE		
	2-4km NE	Recorded		Projectile		N/K	13-Oct, 05:03
	2-4km NE	Recorded	8	Projectile	NW to SE	N/K	13-Oct, 05:05
	2-4km NE	Recorded	4	Projectile	NW to SE	N/K	13-Oct, 05:12
	2-4km NE	Recorded	3	Explosion	Undetermined	N/K	13-Oct, 05:12
	2-4km NE	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 05:30
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 05:30
	2-4km NE	Recorded	1	Muzzle flash		N/K	13-Oct, 05:31
	2-4km NE	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 05:31
	2-4km NE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 05:31
0.07	2-4km NE	Recorded	1	Explosion	Airburst	N/K	13-Oct, 17:50
SMM camera at entry-exit	2-4km E	Recorded	1	Illumination flare	In vertical flight	N/K	12-Oct, 22:59
checkpoint in							
Maiorsk							
(government-	1-3km ENE	Recorded	2	Projectile	N to S	N/K	13-Oct, 04:18
controlled, 45km		necondeu	2	10,000	1,000	11/11	15 500, 04.10
NE of Donetsk)							
SMM camera at	2-4km N	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 19:05
entry-exit	2-4km N 2-4km N	Recorded	2	Explosion	Undetermined	N/K N/K	12-Oct, 19:03
checkpoint in	2-4km NNE	Recorded	1	Explosion	Undetermined	N/K N/K	12-Oct, 19:18
Marinka			9				
(government-	1-2km NE 1-2km NE	Recorded Recorded		Projectile	ESE to WNW	N/K	12-Oct, 20:36
controlled, 23km			8	Projectile	ESE to WNW	N/K	12-Oct, 20:38
	1-2km NE	Recorded	2	Projectile	ESE to WNW	N/K	12-Oct, 20:39

SW of Donetsk)	1-2km NE	Recorded	8	Projectile	ESE to WNW	N/K	12-Oct, 21:18
SW OI DOILCISK)			-	Illumination			
	1-2km NE	Recorded	1	flare	In vertical flight	N/K	12-Oct, 22:22
	1-2km NE	Recorded	2	Illumination flare	In vertical flight	N/K	12-Oct, 22:23
	2-3km NE	Recorded	1	Illumination flare	In vertical flight	N/K	12-Oct, 22:26
	2-3km NE	Recorded	2	Illumination flare	In vertical flight	N/K	12-Oct, 22:27
	1-2km NE	Recorded	1	Projectile	W to E	N/K	12-Oct, 22:28
	1-2km NE	Recorded	1	Projectile	SE to NW	N/K	12-Oct, 22:34
	1-2km NE	Recorded	1	Projectile	W to E	N/K	12-Oct, 22:36
	1-2km NE	Recorded	2	Muzzle flash		N/K	12-Oct, 22:36
	1-2km N	Recorded	1	Projectile	W to E	N/K	12-Oct, 22:55
	1-2km N	Recorded	1	Explosion	Impact	N/K	12-Oct, 22:55
	2-3km NE	Recorded	1	Illumination flare	In vertical flight	N/K	12-Oct, 22:56
	2-3km NE	Recorded	1	Illumination flare	In vertical flight	N/K	12-Oct, 22:57
	1-2km NE	Recorded	1	Projectile	E to W	N/K	12-Oct, 22:58
	1-2km NE	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 23:01
[	2-3km NE	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 23:03
	2-3km N	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 23:04
	2-3km NE	Recorded	1	Projectile	E to W	N/K	12-Oct, 23:05
	2-3km NE	Recorded	1	Projectile	SE to NW	N/K	12-Oct, 23:06
	1-2km NE	Recorded	2	Projectile	W to E	N/K	12-Oct, 23:08
	1-2km NE	Recorded	3	Explosion	Undetermined	N/K	12-Oct, 23:08
	1-2km NE	Recorded	1	Explosion	Undetermined	N/K	12-Oct, 23:12
	1-2km NE	Recorded	2	Explosion	Undetermined	N/K	12-Oct, 23:14
	1-2km NE	Recorded	1	Projectile	W to E	N/K	12-Oct, 23:14
	1-2km NNE	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 00:02
SMM camera at	2-4km S	Recorded	1	Projectile	E to W	N/K	12-Oct, 19:23
entry-exit	1-2km S	Recorded	7	Projectile	E to W	N/K	12-Oct, 21:50
checkpoint in	1-2km S	Recorded	14	Projectile	W to E	N/K	13-Oct, 04:46
Pyshchevyk (government- controlled, 25km NE of Mariupol)	1-2km S	Recorded	17	Projectile	W to E	N/K	13-Oct, 04:47
SMM camera	1-3km NE	Recorded	1	Projectile	WNW to ESE	N/K	13-Oct, 02:06
1km SW of Shyrokyne (20km E of Mariupol)	1-3km NE	Recorded	1	Explosion	Impact	N/K	13-Oct, 02:06
SMM camera in	2-4km E	Recorded	6	Projectile	In vertical flight	N/K	12-Oct, 19:19
Svitlodarsk	2-4km E	Recorded	1	Projectile	S to N	N/K	12-Oct, 19:33
(government-	3-5km E	Recorded	1	Projectile	WNW to ESE	N/K	12-Oct, 20:00
controlled, 57km	1-3km E	Recorded	2	Projectile	SW to NE	N/K	12-Oct, 22:38
NE of Donetsk)	1-3km ESE	Recorded	1	Projectile	NNW to SSE	N/K	12-Oct, 23:58
	3-5km E	Recorded	3	Projectile	S to N	N/K	13-Oct, 01:30
	3-5km E	Recorded	1	Projectile	In vertical flight	N/K	13-Oct, 01:30
	3-5km E	Recorded	7	Projectile	S to N	N/K	13-Oct, 01:31
	3-5km E	Recorded	3	Projectile	S to N	N/K	13-Oct, 01:48
	3-5km E	Recorded	7	Projectile	S to N	N/K	13-Oct, 02:00
	3-5km E	Recorded	13	Projectile	S to N	N/K	13-Oct, 02:01
	3-5km E	Recorded	4	Muzzle flash		N/K	13-Oct, 02:01
	3-5km E	Recorded	6	Projectile	S to N	N/K	13-Oct, 02:02
	3-5km E	Recorded	3	Projectile	S to N	N/K	13-Oct, 02:14
	3-5km E	Recorded	17	Projectile	In vertical flight	N/K	13-Oct, 04:23
	3-5km E	Recorded	2	Projectile	S to N	N/K	13-Oct, 04:23
	3-5km E	Recorded	1	Projectile	WNW to ESE	N/K	13-Oct, 04:55
SMM camera in Zolote (government- controlled, 60km W of Lubansk)	2-4km ESE	Recorded	6	Projectile	WNW to ESE (unable to assess whether inside or outside the	N/K	12-Oct, 20:59
W of Luhansk)					the disengagement		

					area)		
	2-4km SE	Recorded	4	Projectile	NE to SW (unable to assess whether inside or outside the disengagement area)	N/K	12-Oct, 21:01
-	2-4km ESE	Recorded	7	Projectile	NE to SW (unable to assess whether inside or outside the disengagement area)	N/K	12-Oct, 21:03
SE edge of Avdiivka	3-4km NE	Heard	35	Burst		Small arms	13-Oct, 10:15
(government- controlled, 17km N of Donetsk)	3-4km SE	Heard	1	Explosion	Undetermined	N/K	13-Oct, 11:08
1.9km NW of	4-5km N	Heard	3	Explosion	Undetermined	N/K	13-Oct, 11:54
Debaltseve (non-	4-5km N	Heard	5	Burst		HMG	13-Oct, 11:55
government-	4-5km N	Heard	4	Explosion	Undetermined	N/K	13-Oct, 11:59
controlled, 58kmNE of	4-5km N	Heard		Burst	Uncountable overlapping	HMG	13-Oct, 11:59
Donetsk)	4-5km N	Heard	3	Explosion	Undetermined	N/K	13-Oct, 12:06
F	4-5km N	Heard	5	Explosion	Undetermined	N/K	13-Oct, 12:10
F	4-5km N	Heard	3	Burst	Chartenhinea	HMG	13-Oct, 12:10
4.2km NW of			5		Uncountable	Small	
Kalynivka (non-	3-4km NNE	Heard		Burst	overlapping	arms	13-Oct, 09:52
government- controlled, 55km	2-3km NNE	Heard		Burst	Uncountable overlapping	Small arms	13-Oct, 10:12
NE of Donetsk)	5-7km N	Heard	1	Explosion	Undetermined	N/K	13-Oct, 10:35
	5-7km N	Heard	1	Explosion	Undetermined	N/K	13-Oct, 10:38
	5-7km N	Heard	1	Explosion	Undetermined	N/K	13-Oct, 10:40
	5-7km N	Heard	1	Explosion	Undetermined	N/K	13-Oct, 10:43
1.8km N of Petrivske (non- government- controlled, 41km S of Donetsk)	4-6km SE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	13-Oct, 10:35
	4-6km SE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	13-Oct, 10:37
	3-5km S	Heard	3	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	13-Oct, 10:38
-	2-3km S	Heard	4	Burst	Assessed as outside the disengagement area	Small arms	13-Oct, 10:40
-	3-5km SE	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	13-Oct, 10:40
-	3-5km SE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	13-Oct, 10:42
Γ	4-6km SE	Heard	1	Explosion	Undetermined	N/K	13-Oct, 10:48

					(assessed as outside the disengagement area)		
	4-6km SE	Heard	1	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	13-Oct, 10:50
	4-6km SE	Heard	2	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	13-Oct, 10:52
1.1km NW of railway station in	1-2km SSW	Heard	5	Burst		Small arms	13-Oct, 10:13
Yasynuvata (non- government-	1-2km NNW	Heard		Shot and burst	Uncountable overlapping	Small arms	13-Oct, 10:15- 10:17
controlled, 16km NE of Donetsk)	1-2km NNW	Heard		Burst	Uncountable overlapping	HMG	13-Oct, 10:15- 10:17
	4km SSW	Heard	1	Explosion	Undetermined	N/K	13-Oct, 10:35
	3-5km SSW	Heard	1	Explosion	Undetermined	N/K	13-Oct, 11:37
2km SW of Pyshchevyk	1-3km SE	Heard	5	Explosion	Undetermined	N/K	13-Oct, 13:03- 13:07
(government- controlled, 25km NE of Mariupol)	3-4km SE	Saw	1	Other	Airburst	N/K	13-Oct, 13:03- 13:07
1km NNW of Pyshchevyk (government- controlled, 25km NE of Mariupol)	N/K NE	Heard	15	Shot		Small arms	13-Oct, 09:05- 09:10
Svitlodarsk (government-	3-4km SE	Heard	6	Burst		Small arms	12-Oct, 23:28- 23:33
controlled, 57km NE of Donetsk)	3-4km SE	Heard	4	Burst		Small arms	12-Oct, 23:40- 23:44
	3-4km SE	Heard	4	Burst		Small arms	12-Oct, 23:46- 23:50
-	5-6km NE	Heard	1	Explosion	Undetermined	N/K	13-Nov, 07:07
-	5-6km NE	Heard	2	Explosion	Undetermined	N/K	13-Nov, 07:15
	5-6km NE	Heard	7	Explosion	Undetermined	N/K	13-Nov, 07:22
-	3-4km NE	Heard	10	Shot		Small	13-Nov, 07:40
-	3-4km NE	Heard	3	Burst		Small arms	13-Nov, 07:47
	5-6km SE	Heard	30	Explosion	Undetermined	N/K	13-Nov, 10:30-10:40
	5-6km E	Heard	16	Explosion	Undetermined	N/K	13-Nov, 11:40-11:50
ļ Ī	5-6km E	Heard	6	Burst		HMG	13-Nov, 11:52
[ Ī	5-6km SE	Heard	3	Explosion	Undetermined	N/K	13-Nov, 11:54
Vidrodzhennia (government- controlled 66km NE of Donetsk)	2-3km S	Heard	40	Explosion	Undetermined	N/K	13-Nov, 10:35-10:50
NE edge of Stanytsia Luhanska (government- controlled, 16km NE of Luhansk)	5-7km S	Heard	1	Explosion	Undetermined	N/K	12-Oct, 23:16
Toshkivka (government- controlled, 60km NW of Luhansk)	6-7km ESE	Heard	5	Explosion	Undetermined	N/K	13-Oct, 10:38- 10:47
Zolote-4/Rodina	10-15km NW	Heard	3	Explosion	Undetermined	N/K	13-Oct, 10:35-

(government-							11:01
controlled, 59km W of Luhansk)	0.5-1.5km NE	Heard	2	Shot	Undetermined	HMG	13-Oct, 10:35
S edge of Popasna (government-	10-15km SSE	Heard	3	Explosion	Undetermined	N/K	13-Oct, 10:58- 11:01
controlled, 69km W of Luhansk)	4-6km S	Heard	6	Burst	Undetermined	HMG	13-Oct, 11:09- 11:12
	10-15km S	Heard	3	Explosion	Undetermined	N/K	13-Oct, 11:13- 11:14
Pervomaisk (non- government- controlled, 58km W of Luhansk)	3-5km NNE	Heard	45	Burst	Undetermined (unable to assess whether inside or outside the disengagement area)	HMG	13-Oct, 13:10- 13:25
Pervomaisk (non- government- controlled, 58km W of Luhansk)	3-5km NNE	Heard	5	Explosion	Undetermined (unable to assess whether inside or outside the disengagement area)	N/K	13-Oct, 13:10- 13:25
Popasna (government-	4-7km ENE	Heard	3	Explosion	Undetermined	N/K	13-Oct, 13:14- 13:18
controlled, 69km W of Luhansk)	4-7km ENE	Heard	20	Burst	Undetermined	HMG	13-Oct, 13:14- 13:18
Zolote-2/Karbonit (government- controlled, 62km W of Luhansk)	4-5km E	Heard	3	Explosion	Undetermined	N/K	13-Oct, 13:15
Kalynove- Borshchuvate (non-government- controlled, 61 W of Luhansk)	3-5km NW	Heard	6	Burst	Undetermined	HMG	13-Oct, 13:39- 13:41
SMM camera in Berezove (government- controlled, 31km SW of Donetsk)	3-5km ESE	Recorded	4	Projectile	SW to NE	N/K	13-Oct, 22:18
SMM camera in	2-4km SSE	Recorded	4	Projectile	WSW to ENE	N/K	13-Oct, 19:31
Chermalyk	2-4km SSE	Recorded	6	Projectile	WSW to ENE	N/K	13-Oct, 19:32
(government-	2-4km SSE	Recorded	12	Projectile	WSW to ENE	N/K	13-Oct, 19:33
controlled, 31km NE of Mariupol)	2-4km SSE	Recorded	5	Projectile	ENE to WSW	N/K	13-Oct, 19:41
T(E) of Mainapoly	2-4km SSE 2-4km SSE	Recorded Recorded	4	Explosion Projectile	Undetermined ENE to WSW	N/K N/K	13-Oct, 19:41 13-Oct, 19:45
-	2-4km SSE 2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 19:45
-	2-4km SSE	Recorded	5	Projectile	WSW to ENE	N/K	13-Oct, 19:46
	2-4km S	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 19:46
	2-4km SSE	Recorded	3	Explosion	Undetermined	N/K	13-Oct, 19:47
-	2-4km SSE	Recorded	3	Projectile	WSW to ENE	N/K	13-Oct, 19:48
-	2-4km S	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 19:48
-	2-4km SSE	Recorded	1	Projectile	NW to SE	N/K	13-Oct, 19:51
-	2-4km SSE 2-4km SSE	Recorded Recorded	1	Explosion Projectile	Undetermined WNW to ESE	N/K N/K	13-Oct, 19:51 13-Oct, 19:51
-	2-4km SSE 2-4km SSE	Recorded	9	Projectile	ENE to WSW	N/K N/K	13-Oct, 19:51
-	2-4km SSE 2-4km SSE	Recorded	7	Explosion	Undetermined	N/K	13-Oct, 19:52
	2-4km SSE	Recorded	9	Projectile	WSW to ENE	N/K	13-Oct, 19:52
ľ	2-4km SSE	Recorded	7	Projectile	ENE to WSW	N/K	13-Oct, 19:52
	2-4km SSE	Recorded	2	Projectile	ENE to WSW	N/K	13-Oct, 19:53
	2-4km SSE	Recorded	7	Explosion	Undetermined	N/K	13-Oct, 19:53
ł	2-4km SSE	Recorded	17	Projectile	WSW to ENE	N/K	13-Oct, 19:53
	2-4km SSE	Recorded	1	Burst	ENE to WSW (approximately	N/K	13-Oct, 19:53

			1 1	1	20 rounds)		1 1
	2-4km SE	Recorded	1	Projectile	ENE to WSW	N/K	13-Oct, 19:54
	2-4km SSE	Recorded	2	Explosion	Undetermined	N/K N/K	13-Oct, 19:54
	2-4km SSE 2-4km SSE	Recorded	1	Projectile	WNW to ESE	N/K N/K	
		Recorded	1				13-Oct, 19:54
	2-4km SE	Recorded	2	Explosion	Undetermined WNW to ESE	N/K	13-Oct, 19:54
	2-4km SSE			Projectile		N/K	13-Oct, 19:57
	2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 19:57
	2-4km S	Recorded	1	Projectile	In vertical flight	N/K	13-Oct, 19:57
	2-4km SSE	Recorded	12	Projectile	WSW to ENE	N/K	13-Oct, 19:58
	2-4km SSE	Recorded	1	Projectile	WSW to ENE	N/K	13-Oct, 20:55
	2-4km SSE	Recorded	2	Projectile	ENE to WSW	N/K	13-Oct, 21:00
	2-4km SSE	Recorded	5	Projectile	ENE to WSW	N/K	13-Oct, 21:18
	2-4km SSE	Recorded	2	Projectile	WSW to ENE	N/K	13-Oct, 21:37
	2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 21:37
	2-4km SSW	Recorded	3	Projectile	WSW to ENE	N/K	13-Oct, 21:38
	2-4km SSW	Recorded	6	Projectile	WSW to ENE	N/K	13-Oct, 22:23
	2-4km SSW	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 22:26
	2-4km SSW	Recorded	1	Projectile	WSW to ENE	N/K	13-Oct, 22:26
	2-4km SSW	Recorded	1	Projectile	ENE to WSW	N/K	13-Oct, 22:27
	2-4km SSW	Recorded	7	Explosion	Undetermined	N/K	13-Oct, 22:30
	2-4km S	Recorded	2	Projectile	WSW to ENE	N/K	13-Oct, 22:30
	2-4km SSW	Recorded	3	Explosion	Undetermined	N/K	13-Oct, 22:31
	2-4km SSW	Recorded	6	Explosion	Undetermined	N/K	13-Oct, 22:32
	2-4km SSW	Recorded	2	Projectile	WSW to ENE	N/K	13-Oct, 22:32
	2-4km SSW	Recorded	1	Muzzle flash		N/K	13-Oct, 22:32
	2-4km SSW	Recorded	5	Projectile	WSW to ENE	N/K	13-Oct, 22:33
	2-4km SSW	Recorded	3	Explosion	Undetermined	N/K	13-Oct, 22:33
	2-4km SSW	Recorded	13	Explosion	Undetermined	N/K	13-Oct, 22:34
	2-4km SSW	Recorded	1	Projectile	WSW to ENE	N/K	13-Oct, 22:34
	2-4km SSW	Recorded	3	Explosion	Undetermined	N/K	13-Oct, 22:35
	2-4km SSW	Recorded	2	Projectile	WSW to ENE	N/K	13-Oct, 22:35
	2-4km SSW	Recorded	1	Muzzle flash		N/K	13-Oct, 22:35
	2-4km SSW	Recorded	2	Projectile	ENE to WSW	N/K	13-Oct, 22:36
	2-4km SSW	Recorded	6	Explosion	Undetermined	N/K	13-Oct, 22:37
	2-4km SSW	Recorded	1	Projectile	ENE to WSW	N/K	13-Oct, 22:37
	2-4km S	Recorded	1	Projectile	WSW to ENE	N/K	13-Oct, 22:37
	2-4km SE	Recorded	1	Projectile	SSW to NNE	N/K	14-Oct, 00:48
	2-4km SE	Recorded	2	Projectile	SSW to NNE	N/K	14-Oct, 00:49
	2-4km SE	Recorded	1	Projectile	SSW to NNE	N/K	14-Oct, 00:50
	2-4km SE	Recorded	1	Projectile	SSW to NNE	N/K	14-Oct, 00:51
	2-4km SE	Recorded	2	Projectile	SSW to NNE	N/K	14-Oct, 00:52
	2-4km SE	Recorded	1	Projectile	SSW to NNE	N/K	14-Oct, 00:53
	2-4km SE	Recorded	1	Projectile	SSW to NNE	N/K	14-Oct, 00:54
	2-4km SE	Recorded	1	Projectile	SSW to NNE	N/K	14-Oct, 00:58
	2-4km SE	Recorded	2	Projectile	SSW to NNE	N/K	14-Oct, 01:27
	2-4km SE	Recorded	1	Projectile	SSW to NNE	N/K	14-Oct, 01:29
	2-4km SE	Recorded	2	Projectile	SSW to NNE	N/K	14-Oct, 01:32
	2-4km SE	Recorded	3	Projectile	NNE to SSW	N/K	14-Oct, 02:58
	2-4km SE	Recorded	1	Explosion	Undetermined	N/K	14-Oct, 03:08
	2-4km SE	Recorded	1	Projectile	NNE to SSW	N/K	14-Oct, 03:08
	2-4km SE	Recorded	8	Projectile	SSW to NNE	N/K	14-Oct, 03:18
	2-4km SE	Recorded	2	Projectile	SSW to NNE	N/K	14-Oct, 03:19
	2-4km SE	Recorded	3	Projectile	NNE to SSW	N/K	14-Oct, 03:20
	2-4km SE	Recorded	2	Projectile	NNE to SSW	N/K	14-Oct, 03:50
	2-4km SE	Recorded	1	Explosion	Undetermined	N/K	14-Oct, 03:50
	2-4km SE	Recorded	5	Projectile	NNE to SSW	N/K	14-Oct, 03:51
	2-4km SE	Recorded	4	Projectile	NNE to SSW	N/K	14-Oct, 04:26
	2-4km SE	Recorded	3	Projectile	SSW to NNE	N/K	14-Oct, 05:00
	2-4km SE	Recorded	3	Projectile	SSW to NNE	N/K	14-Oct, 05:01
	2-4km SE	Recorded	2	Projectile	SSW to NNE	N/K	14-Oct, 05:02
SMM camera at	1-2km SSW	Recorded	12	Projectile	W to E	N/K	13-Oct, 18:18
Donetsk Filtration	1-2km SSW	Recorded	9	Projectile	W to E	N/K	13-Oct, 18:19
Station (15km N	1-2km S	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 18:22
of Donetsk)	2-4km SSW	Recorded	2	Projectile	NW to SE	N/K	13-Oct, 19:15
			-				

0.5 · Ikm S         Recorded         1         Projectile         NF to SW         NKK         13-Oct, 20:13           1-3km SSW         Recorded         1         Projectile         NF to SW         NKK         13-Oct, 20:15           1-3km SSW         Recorded         1         Projectile         NF to SE         NKK         13-Oct, 20:17           1-3km SSW         Recorded         1         Projectile         SF to NW         NKK         13-Oct, 20:17           0.5 -1km SSW         Recorded         1         Projectile         SF to NW         NKK         13-Oct, 20:19           0.5 -1km SSW         Recorded         1         Brojectile         SF to NW         NKK         13-Oct, 20:19           0.5 -1km SSW         Recorded         1         Explosion         Undetermined         NKK         13-Oct, 20:21           0.5 -1km SSW         Recorded         1         Explosion         Undetermined         NKK         13-Oct, 20:22           0.5 -1km SSW         Recorded         1         Explosion         Undetermined         NKK         13-Oct, 20:23           0.5 -1km SSW         Recorded         1         Explosion         Undetermined         NKK         13-Oct, 20:23           0.5 -1km SSW					1			1
1-3km SSW         Recorded         1         Projectile         NW         NK         13-0xt, 20:17           1-3km SSW         Recorded         1         Muzzle flash         NK         13-0xt, 20:17           1-3km SSW         Recorded         2         Projectile         SE to NW         NK         13-0xt, 20:18           0-5-1km SSW         Recorded         3         Projectile         SE to NW         NK         13-0xt, 20:18           0-5-1km SSW         Recorded         13         Bruzzle flash         NK         13-0xt, 20:19           0-5-1km SSW         Recorded         12         Explosion         Undetermined         NK         13-0xt, 20:20           0-5-1km SSW         Recorded         2         Explosion         Undetermined         NK         13-0xt, 20:22           0-5-1km SSW         Recorded         3         Explosion         Undetermined         NK         13-0xt, 20:23           0-5-1km SSW         Recorded         3         Explosion         Undetermined         NK         13-0xt, 20:26           0-5-1km SSW         Recorded         1         Explosion         Undetermined         NK         13-0xt, 20:27           0-5-1km SSW         Recorded         1         Explosion </td <td></td> <td>0.5-1km S</td> <td>Recorded</td> <td>1</td> <td>Explosion</td> <td>Undetermined</td> <td></td> <td>13-Oct, 19:18</td>		0.5-1km S	Recorded	1	Explosion	Undetermined		13-Oct, 19:18
1-3km SSW         Recorded         1         Projectile         NW to SE         NK         Ki         1-3cx (2):17           1-3km SSW         Recorded         2         Projectile         SE to NW         NK         13-Oct, 20:18           0.5-1km SSW         Recorded         44         Explosion         Impact         NKK         13-Oct, 20:18           0.5-1km SSW         Recorded         16         Explosion         Impact         NKK         13-Oct, 20:19           0.5-1km SSW         Recorded         13         Explosion         Undetermined         NKK         13-Oct, 20:19           0.5-1km SSW         Recorded         15         Explosion         Undetermined         NKK         13-Oct, 20:21           0.5-1km SSW         Recorded         15         Explosion         Undetermined         NKK         13-Oct, 20:21           0.5-1km SK         Recorded         15         Explosion         Undetermined         NKK         13-Oct, 20:21           0.5-1km SK         Recorded         15         Explosion         Undetermined         NKK         13-Oct, 20:21           0.5-1km SK         Recorded         1         Explosion         Undetermined         NKK         13-Oct, 20:21           0.5-				1		NE to SW		13-Oct, 20:13
1-3km SSW         Recorded         1         Nuzzle flash         NK         13-Oct. 20:18           0.5-1km SSW         Recorded         4         Pepiderile         Et lo NW         NK         13-Oct. 20:18           0.5-1km SSW         Recorded         16         Explosion         Impact         NK         13-Oct. 20:19           0.5-1km SSW         Recorded         13         Muzzle flash         Impact         NK         13-Oct. 20:19           0.5-1km SSW         Recorded         13         Muzzle flash         Impact         NK         13-Oct. 20:17           0.5-1km SSW         Recorded         13         Explosion         Undetermined         NK         13-Oct. 20:12           0.5-1km SSW         Recorded         3         Explosion         Undetermined         NK         13-Oct. 20:27           0.5-1km SSW         Recorded         3         Explosion         Undetermined         NK         13-Oct. 20:29           0.5-1km SSW         Recorded         1         Explosion         Undetermined         NK         13-Oct. 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         NK         13-Oct. 20:29           0.5-1km SSW         Recorded <t< td=""><td></td><td></td><td>Recorded</td><td>2</td><td></td><td></td><td></td><td></td></t<>			Recorded	2				
0.5-1km SSW         Recorded         2         Projectile         SE to NW         NKK         13-Oct. 20:18           0.5-1km SSW         Recorded         3         Projectile         SE to NW         NKK         13-Oct. 20:19           0.5-1km SSW         Recorded         16         Tephosion         Impact         NKK         13-Oct. 20:19           0.5-1km SSW         Recorded         13         Muzzle flash         NKK         13-Oct. 20:19           0.5-1km SSW         Recorded         3         Explosion         Undetermined         NKK         13-Oct. 20:29           0.5-1km SW         Recorded         18         Explosion         Undetermined         NKK         13-Oct. 20:27           0.5-1km SW         Recorded         3         Explosion         Undetermined         NKK         13-Oct. 20:27           0.5-1km SW         Recorded         3         Explosion         Undetermined         NKK         13-Oct. 20:29           0.5-1km SW         Recorded         3         Explosion         Undetermined         NKK         13-Oct. 20:39           0.5-1km SSW         Recorded         3         Explosion         Undetermined         NKK         13-Oct. 20:39           0.5-1km SSW         Recorded		1-3km SSW	Recorded	1	Projectile	NW to SE	N/K	13-Oct, 20:17
0.5-1km SSW         Recorded         4.4         Explosion         Impact         NRK         13-Oct. 20:19           0.5-1km SSW         Recorded         1.6         Explosion         Impact         NRK         13-Oct. 20:19           0.5-1km SSW         Recorded         1.3         Inzylenian         Indetermined         NRK         13-Oct. 20:19           0.5-1km SSW         Recorded         1.8         Explosion         Undetermined         NRK         13-Oct. 20:12           0.5-1km S         Recorded         1.8         Explosion         Undetermined         NRK         13-Oct. 20:12           0.5-1km S         Recorded         3         Explosion         Undetermined         NRK         13-Oct. 20:23           0.5-1km SSW         Recorded         3         Explosion         Undetermined         NRK         13-Oct. 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         NRK         13-Oct. 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         NRK         13-Oct. 20:34           0.5-1km SSW         Recorded         1         Explosion         Undetermined         NRK         13-Oct. 20:35           0.5-1km		1-3km SSW	Recorded	1	Muzzle flash		N/K	13-Oct, 20:17
0.5-1km SSW         Recorded         3         Projectile         SE to NW         NKK         13-Oct. 20:19           0.5-1km SSW         Recorded         16         Explosion         Impact         NiK         13-Oct. 20:19           0.5-1km SSW         Recorded         2         Explosion         Undetermined         NiK         13-Oct. 20:19           0.5-1km SR         Recorded         3         Explosion         Undetermined         NiK         13-Oct. 20:21           0.5-1km SR         Recorded         3         Explosion         Undetermined         NiK         13-Oct. 20:22           0.5-1km SR         Recorded         3         Explosion         Undetermined         NiK         13-Oct. 20:29           0.5-1km SR         Recorded         3         Explosion         Undetermined         NiK         13-Oct. 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         NiK         13-Oct. 20:32           0.5-1km SSW         Recorded         1         Explosion         Undetermined         NiK         13-Oct. 20:32           0.5-1km SSW         Recorded         1         Explosion         Undetermined         NiK         13-Oct. 20:34           0.5-1km SSW <td></td> <td>0.5-1km SSW</td> <td>Recorded</td> <td>2</td> <td>Projectile</td> <td>SE to NW</td> <td>N/K</td> <td>13-Oct, 20:18</td>		0.5-1km SSW	Recorded	2	Projectile	SE to NW	N/K	13-Oct, 20:18
0.5-1km SSW         Recorded         16         Furpost         Nrk         13-Oct. 20:19           0.5-1km SSW         Recorded         13         Explosion         Undetermined         Nrk         13-Oct. 20:19           0.5-1km SSW         Recorded         2         Explosion         Undetermined         Nrk         13-Oct. 20:20           0.5-1km S         Recorded         3         Explosion         Undetermined         Nrk         13-Oct. 20:20           0.5-1km S         Recorded         3         Explosion         Undetermined         Nrk         13-Oct. 20:27           0.5-1km S         Recorded         3         Explosion         Undetermined         Nrk         13-Oct. 20:27           0.5-1km SSW         Recorded         2         Explosion         Undetermined         Nrk         13-Oct. 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         Nrk         13-Oct. 20:29           0.5-1km SSW         Recorded         1         Explosion         Undetermined         Nrk         13-Oct. 20:29           0.5-1km SSW         Recorded         1         Explosion         Undetermined         Nrk         13-Oct. 20:39           0.5-1km SSW         Recorded </td <td></td> <td>0.5-1km SSW</td> <td>Recorded</td> <td>44</td> <td>Explosion</td> <td>Impact</td> <td>N/K</td> <td>13-Oct, 20:18</td>		0.5-1km SSW	Recorded	44	Explosion	Impact	N/K	13-Oct, 20:18
0.5-1km SW         Recorded         13         Muzzle flash         NK         13-0cr, 20:19           0.5-1km SW         Recorded         13         Explosion         Undetermined         NK         13-0cr, 20:29           0.5-1km SW         Recorded         18         Explosion         Undetermined         NK         13-0cr, 20:22           0.5-1km S         Recorded         3         Explosion         Undetermined         NK         13-0cr, 20:25           0.5-1km S         Recorded         3         Explosion         Undetermined         NK         13-0cr, 20:29           0.5-1km SW         Recorded         3         Explosion         Undetermined         NK         13-0cr, 20:29           0.5-1km SW         Recorded         12         Explosion         Undetermined         NK         13-0cr, 20:29           0.5-1km SW         Recorded         2         Explosion         Undetermined         NK         13-0cr, 20:39           0.5-1km SW         Recorded         1         Explosion         Undetermined         NK         13-0cr, 20:37           0.5-1km SW         Recorded         1         Projectile         NW to SE         NK         13-0cr, 20:37           0.5-1km SW         Recorded         <		0.5-1km SSW	Recorded	3	Projectile	SE to NW	N/K	13-Oct, 20:19
9.5-1km SW         Recorded         13         Muzzle flash         NK         13-0cr, 20:19           9.5-1km SW         Recorded         2         Explosion         Undetermined         NK         13-0cr, 20:20           9.5-1km SW         Recorded         18         Explosion         Undetermined         NK         13-0cr, 20:22           9.5-1km S         Recorded         3         Explosion         Undetermined         NK         13-0cr, 20:25           9.5-1km S         Recorded         3         Explosion         Undetermined         NK         13-0cr, 20:25           9.5-1km SW         Recorded         3         Explosion         Undetermined         NK         13-0cr, 20:29           9.5-1km SW         Recorded         1         Explosion         Undetermined         NK         13-0cr, 20:29           0.5-1km SW         Recorded         2         Explosion         Undetermined         NK         13-0cr, 20:37           0.5-1km SW         Recorded         1         Projectile         NW to SE         NK         13-0cr, 20:37           0.5-1km SW         Recorded         1         Projectile         NW to SE         NK         13-0cr, 20:37           0.5-1km SW         Recorded         1<		0.5-1km SSW	Recorded	16	Explosion	Impact	N/K	13-Oct, 20:19
0.5.1km S         Recorded         3         Explosion         Undetermined         N.K         13-Oct, 20:21           0.5.1km S         Recorded         18         Explosion         Undetermined         N.K         13-Oct, 20:21           0.5.1km S         Recorded         3         Explosion         Undetermined         N.K         13-Oct, 20:23           0.5.1km S         Recorded         3         Explosion         Undetermined         N.K         13-Oct, 20:25           0.5.1km S         Recorded         3         Explosion         Undetermined         N.K         13-Oct, 20:25           0.5.1km SW         Recorded         1         Projectile         N.W to SE         N.K         13-Oct, 20:29           0.5.1km SW         Recorded         2         Explosion         Undetermined         N.K         13-Oct, 20:29           0.5.1km SW         Recorded         1         Explosion         Undetermined         N.K         13-Oct, 20:32           0.5.1km SW         Recorded         1         Explosion         Undetermined         N.K         13-Oct, 20:32           0.5.1km SW         Recorded         1         Projectile         N.W to SE         N.K         13-Oct, 20:33           0.5.1km SW		0.5-1km SSW	Recorded	13			N/K	
0.5-1km SW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20-22           0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20-22           0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20-25           0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20-22           0.5-1km SW         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20-22           0.5-1km SW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20-29           0.5-1km SW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20-29           0.5-1km SW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20-29           0.5-1km SW         Recorded         1         Projectile         N/W to SE         N/K         13-Oct, 20-29           0.5-1km SW         Recorded         1         Projectile         N/W to SE         N/K         13-Oct, 20-29           0.5-1km SW						Undetermined		
0.5.1km S         Recorded         18         Explosion         Undetermined         N/K         13-Oct, 20:23           0.5.1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:23           0.5.1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:25           0.5.1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:22           0.5.1km SSW         Recorded         1         Projectile         N/W to SE         N/K         13-Oct, 20:22           0.5.1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:22           0.5.1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:32           0.5.1km SSW         Recorded         1         Projectile         N/W to SE         N/K         13-Oct, 20:33           0.5.1km SSW         Recorded         1         Projectile         N/W to SE         N/K         13-Oct, 20:33           0.5.1km SSW         Recorded         1         Projectile         N/W to SE         N/K         13-Oct, 20:33           0.5.1km SSW								
0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:23           0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:25           0.5-1km SW         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:27           0.5-1km SW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:28           0.5-1km SW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           1-3km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:30           0.5-1km SSW						Undetermined		
0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:25           0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:26           0.5-1km SW         Recorded         1         Projectile         NW to St:         N/K         13-Oct, 20:28           0.5-1km SW         Recorded         4         Projectile         E to W         N/K         13-Oct, 20:29           0.5-1km SW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:32           0.5-1km SW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:34           0.5-1km SW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:34           0.5-1km SW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:36           0.5-1km SW         Rec								
0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:25           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:28           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:28           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           1.3km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW								
9.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:27           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:28           0.5-1km SSW         Recorded         4         Projectile         E to W         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         4         Projectile         E to W         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:32           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:38           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:38           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:38           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 21:00           0.5-1km SSW <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
9.5-1km SSW         Recorded         1         Projectile         N/K         13-Oct, 20:28           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:32           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:30           0.5-1km SSW         Recorded					•			
M         0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           1-3km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 22:08           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 22:08           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1								
9.5-1km SSW         Recorded         4         Projectile         E to W         N/K         13-Oct, 20:29           0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:32           0.5-1km S         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:32           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 17:47           1.3km SSW <t< td=""><td></td><td></td><td></td><td></td><td>5</td><td></td><td></td><td></td></t<>					5			
0.5-1km SSW         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:32           0.5-1km S         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:33           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           1-3km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:41           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:41           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 17:47           Hutove         2-								
0.5-1km S         Recorded         3         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SS         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.4km EX					U			
0.5-1km S         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:33           1-3km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 20:33           0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 21:00           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           1.5km NE of         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:48           Houtove         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 19:10					•			
1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 20:34           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:38           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:38           0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 20:34           0.5-1km SSW         Recorded         3         Projectile         NW to SE         N/K         13-Oct, 22:05           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:06           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:04           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 17:48           SMM camera         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           1.stm NE         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48      (								,
0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:37           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 21:37           0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 21:17           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:05           1.3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 17:47           1.5km NE of         1-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:47           1.5km VE of         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           (government-         Controlled, 20km         3-Skm E         Recorded         1         Projectile         <								
0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 20:38           0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 21:00           0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 22:05           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:06           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:06           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           1-3km SSW         Recorded         1         Explosion         Airburst         N/K         13-Oct, 17:47           1.5km NE of         1-4km E         Recorded         1         Projectile         N to SE         N/K         13-Oct, 18:07           Reorded         1         Projectile         N to serical flight         N/K         13-Oct, 18:20           Controlled, 20km         3-5km E         Recorded         1         Projectile         N to S         N/K         13-Oct, 19:10								
0.5-1km SSW         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 21:00           0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 21:17           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:06           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:07           1.5km SFW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           1.5km NE of         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:47           (government-         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:59           NE of Mariupol         1-3km ENE         Recorded         1         Projectile         N to S         N/K         13-Oct, 19:32           2-4km E         Recorded         2         Projectile         N to S         N/K </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
0.5-1km SSW         Recorded         2         Projectile         NW to SE         N/K         13-Oct, 21:17           0.5-1km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           1-3km SS         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 17:47           1.5km NE of         1.4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           (government-         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:20           0.4tm ENE         Recorded         1         Projectile         N to S         N/K         13-Oct, 18:20           0.4tm ENE         Recorded         1         Projectile         N to S         N/K         13-Oct, 19:52<								
0.5-1km SSW         Recorded         3         Projectile         NW to SE         N/K         13-Oct, 22:05           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:06           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 20:08           SMM camera         1-3km S         Recorded         1         Explosion         Airburst         N/K         14-Oct, 00:41           1.5km NE of         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:47           1.5km NE of         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           Hnutove         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:20           controlled, 20km         3-5km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 19:06           1-3km ENE         Recorded         1         Projectile         N to S         N/K         13-Oct, 19:06           2-4km ENE         Recorded         2 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
I-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:08           1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:10           SMM camera         1-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           1.5km NS of         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:48           Houtove         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           (government-         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:59           NE of Mariupol         1-3km ENE         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 19:06           2-4km ENE         Recorded         1         Projectile         NW to SE         N/K         13-Oct, 19:32           2-4km ENE         Recorded         2         Projectile         N to S         N/K         13-Oct, 20:02           2-4km ENE         Recorded         2         Pro								13-Oct, 21:17
I-3km SSW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:10           I-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           SMM camera         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:47           1.5km NE of         4         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           (government- controlled, 20km         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           (government- controlled, 20km         3-Skm E         Recorded         1         Explosion         Impact         N/K         13-Oct, 18:20           1-3km ENE         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 19:06           2-4km ENE         Recorded         2         Projectile         N to S         N/K         13-Oct, 19:32           2-4km ENE         Recorded         1         Projectile         N to S         N/K         13-Oct, 20:02           2-4km ENE         Recorded         2         Pr				3				
I-3km SSW         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 00:41           SMM camera         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         14-Oct, 00:41           1.5km NE of         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:47           Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           (government-controlled, 20km         NE of Mariupol         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:20           controlled, 20km         NE of Mariupol         1-3km ENE         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 19:06           2-4km E         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 19:32           2-4km E         Recorded         2         Projectile         N to S         N/K         13-Oct, 19:32           2-4km ENE         Recorded         1         Muzzle flash         N/K         13-Oct, 20:53           2-4km ENE         Recorded         2		1-3km SSW	Recorded	1		Undetermined	N/K	13-Oct, 22:08
Image: style		1-3km SSW	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 22:10
SMM camera         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 17:47           1.5km NE of Hnutove (government- controlled, 20km NE of Mariupol)         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 17:48           (government- controlled, 20km NE of Mariupol)         3-5km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:20           2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:20           2-4km E         Recorded         1         Projectile         N to S         N/K         13-Oct, 19:14           2-4km E         Recorded         2         Projectile         N to S         N/K         13-Oct, 19:32           2-4km ENE         Recorded         1         Muzzle flash         N/K         13-Oct, 19:32           2-4km E         Recorded         2         Projectile         N to S         N/K         13-Oct, 20:02           2-4km E         Recorded         2         Projectile         N to S         N/K         13-Oct, 21:50           2-4km ESE         Recorded         1         Projectile </td <td></td> <td>1-3km SSW</td> <td>Recorded</td> <td>1</td> <td>Explosion</td> <td>Undetermined</td> <td>N/K</td> <td>14-Oct, 00:41</td>		1-3km SSW	Recorded	1	Explosion	Undetermined	N/K	14-Oct, 00:41
1.5km NE of Hutove       2-4km E       Recorded       3       Projectile       N to S       N/K       13-Oct, 17:48         (government- controlled, 20km NE of Mariupol)       2-4km E       Recorded       1       Explosion       Impact       N/K       13-Oct, 17:48         2-4km E       Recorded       1       Explosion       Impact       N/K       13-Oct, 18:20         0:ontrolled, 20km NE of Mariupol)       3-5km E       Recorded       1       Projectile       In vertical flight       N/K       13-Oct, 18:20         1-3km ENE       Recorded       4       Projectile       NW to SE       N/K       13-Oct, 19:32         2-4km ENE       Recorded       1       Explosion       Undetermined       N/K       13-Oct, 19:32         2-4km ENE       Recorded       2       Projectile       N to S       N/K       13-Oct, 19:32         2-4km ENE       Recorded       2       Projectile       N to S       N/K       13-Oct, 20:02         2-4km ENE       Recorded       1       Muzzle flash       N/K       13-Oct, 21:50         2-4km ESE       Recorded       1       Projectile       S to N       N/K       13-Oct, 21:50         2-4km ESE       Recorded       12       Proje		1-3km S	Recorded	1	Explosion	Airburst	N/K	14-Oct, 00:41
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	SMM camera	2-4km E	Recorded	3	Projectile	In vertical flight	N/K	13-Oct, 17:47
	1.5km NE of	2-4km E	Recorded	3	Projectile	N to S	N/K	13-Oct, 17:48
controlled, 20km NE of Mariupol)3-5km ERecorded1ProjectileIn vertical flightN/K13-Oct, 18:591-3km ENERecorded4ProjectileNW to SEN/K13-Oct, 19:062-4km ENERecorded1ExplosionUndeterminedN/K13-Oct, 19:142-4km ENERecorded2ProjectileS to NN/K13-Oct, 19:322-4km ENERecorded3ProjectileN to SN/K13-Oct, 19:322-4km ENERecorded1Muzzle flashN/K13-Oct, 19:542-4km ERecorded2ExplosionUndeterminedN/K13-Oct, 20:022-4km ERecorded2ProjectileN to SN/K13-Oct, 20:532-4km ESERecorded3ProjectileN to SN/K13-Oct, 21:522-4km ESERecorded1ProjectileS to NN/K13-Oct, 21:522-4km ESERecorded12ProjectileS to NN/K13-Oct, 21:522-4km ESERecorded19ProjectileS to NN/K13-Oct, 21:582-4km ESERecorded19ProjectileS to NN/K13-Oct, 22:012-4km ESERecorded19ProjectileS to NN/K13-Oct, 22:012-4km ESERecorded19ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded19ProjectileS to NN/K13-Oct, 22:012-4km ESEReco	Hnutove	2-4km E	Recorded	1	Projectile	In vertical flight	N/K	13-Oct, 17:48
Controlled, 20km         3-5km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 18:59           NE of Mariupol)         1-3km ENE         Recorded         4         Projectile         NW to SE         N/K         13-Oct, 19:06           2-4km ENE         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 19:32           2-4km ENE         Recorded         2         Projectile         N to S         N/K         13-Oct, 19:32           2-4km ENE         Recorded         1         Muzzle flash         N/K         13-Oct, 19:54           2-4km E         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:02           2-4km E         Recorded         2         Projectile         N to S         N/K         13-Oct, 21:50           2-4km E         Recorded         1         Projectile         S to N         N/K         13-Oct, 21:52           2-4km ESE         Recorded         12         Projectile         S to N         N/K         13-Oct, 21:52           2-4km ESE         Recorded         12         Projectile         S to N         N/K         13-Oct, 21:52           2-4km ESE<	(government-	2-4km E	Recorded	1	Explosion	Impact	N/K	13-Oct, 18:20
NE of Mariupol)         1-3km ENE         Recorded         4         Projectile         NW to SE         N/K         13-Oct, 19:06           2-4km ENE         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 19:14           2-4km ENE         Recorded         2         Projectile         S to N         N/K         13-Oct, 19:32           2-4km ENE         Recorded         1         Muzzle flash         N/K         13-Oct, 19:32           2-4km ENE         Recorded         1         Muzzle flash         N/K         13-Oct, 19:32           2-4km E         Recorded         2         Explosion         Undetermined         N/K         13-Oct, 20:02           2-4km E         Recorded         2         Projectile         N to S         N/K         13-Oct, 20:02           2-4km ESE         Recorded         1         Projectile         N to S         N/K         13-Oct, 21:50           2-4km ESE         Recorded         1         Projectile         S to N         N/K         13-Oct, 21:50           2-4km ESE         Recorded         19         Projectile         S to N         N/K         13-Oct, 21:57           2-4km ESE         Recorded         25         Pr	controlled, 20km	3-5km E	Recorded	1	Projectile		N/K	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	NE of Mariupol)	1-3km ENE	Recorded	4	Projectile	-	N/K	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$			Recorded	1	6	Undetermined		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $								
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$					J	11100.0		
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$						Undetermined		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $								
2-4km ESERecorded6ProjectileS to NN/K13-Oct, 21:522-4km ESERecorded1ProjectileS to NN/K13-Oct, 21:562-4km ESERecorded12ProjectileS to NN/K13-Oct, 21:572-4km ESERecorded19ProjectileS to NN/K13-Oct, 21:582-4km ESERecorded25ProjectileS to NN/K13-Oct, 21:592-4km ESERecorded21ProjectileS to NN/K13-Oct, 22:002-4km ESERecorded5ProjectileS to NN/K13-Oct, 22:002-4km ESERecorded12ProjectileS to NN/K13-Oct, 22:012-4km ESERecorded12ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded3ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded3ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:072-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:112-4km ESERecorded1ProjectileN to S </td <td></td> <td></td> <td></td> <td></td> <td>, v</td> <td></td> <td></td> <td></td>					, v			
2-4km ESERecorded1ProjectileS to NN/K13-Oct, 21:562-4km ESERecorded12ProjectileS to NN/K13-Oct, 21:572-4km ESERecorded19ProjectileS to NN/K13-Oct, 21:582-4km ESERecorded25ProjectileS to NN/K13-Oct, 21:592-4km ESERecorded21ProjectileS to NN/K13-Oct, 22:002-4km ESERecorded5ProjectileS to NN/K13-Oct, 22:002-4km ESERecorded12ProjectileS to NN/K13-Oct, 22:012-4km ENERecorded12ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded4ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded4ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded4ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded1ProjectileN to SN/K13-Oct, 22:112-4km ESERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileS to N <td></td> <td></td> <td></td> <td></td> <td>, v</td> <td></td> <td></td> <td></td>					, v			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					, v			
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$					, v			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $								
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					6			
2-4km ESERecorded5ProjectileS to NN/K13-Oct, 22:012-4km ENERecorded12ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded4ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded3ProjectileS to NN/K13-Oct, 22:032-4km ENERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded1ProjectileN to SN/K13-Oct, 22:082-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:112-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12								
2-4km ENERecorded12ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded4ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded3ProjectileS to NN/K13-Oct, 22:032-4km ENERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded2ProjectileN to SN/K13-Oct, 22:072-4km ESERecorded2ProjectileN to SN/K13-Oct, 22:082-4km ENERecorded1ProjectileN to SN/K13-Oct, 22:112-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12								
2-4km ESERecorded4ProjectileS to NN/K13-Oct, 22:022-4km ESERecorded3ProjectileS to NN/K13-Oct, 22:032-4km ENERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded2ProjectileN to SN/K13-Oct, 22:072-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:112-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12			K PCOTCIPCI	5	riojecile	S 10 IN		
2-4km ESERecorded3ProjectileS to NN/K13-Oct, 22:032-4km ENERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:072-4km ESERecorded2ProjectileS to NN/K13-Oct, 22:082-4km ENERecorded1ProjectileN to SN/K13-Oct, 22:112-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12					Decks -+11	S to M	NT/TZ	
2-4km ENERecorded4ProjectileN to SN/K13-Oct, 22:032-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:072-4km ESERecorded2ProjectileS to NN/K13-Oct, 22:082-4km ENERecorded1ProjectileN to SN/K13-Oct, 22:112-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12		2-4km ENE	Recorded	12	U			
2-4km ESERecorded4ProjectileN to SN/K13-Oct, 22:072-4km ESERecorded2ProjectileS to NN/K13-Oct, 22:082-4km ENERecorded1ProjectileN to SN/K13-Oct, 22:112-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12		2-4km ENE 2-4km ESE	Recorded Recorded	12 4	Projectile	S to N	N/K	13-Oct, 22:02
2-4km ESERecorded2ProjectileS to NN/K13-Oct, 22:082-4km ENERecorded1ProjectileN to SN/K13-Oct, 22:112-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12		2-4km ENE 2-4km ESE 2-4km ESE	Recorded Recorded Recorded	12 4 3	Projectile Projectile	S to N S to N	N/K N/K	13-Oct, 22:02 13-Oct, 22:03
2-4km ENERecorded1ProjectileN to SN/K13-Oct, 22:112-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12		2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE	Recorded Recorded Recorded Recorded	12 4 3 4	Projectile Projectile Projectile	S to N S to N N to S	N/K N/K N/K	13-Oct, 22:02 13-Oct, 22:03 13-Oct, 22:03
2-4km ESERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12		2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE 2-4km ESE	Recorded Recorded Recorded Recorded	12 4 3 4 4	Projectile Projectile Projectile Projectile	S to N S to N N to S N to S	N/K N/K N/K N/K	13-Oct, 22:02 13-Oct, 22:03 13-Oct, 22:03 13-Oct, 22:07
2-4km ERecorded1ProjectileS to NN/K13-Oct, 22:122-4km ERecorded1ProjectileN to SN/K13-Oct, 22:12		2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE 2-4km ESE 2-4km ESE	Recorded Recorded Recorded Recorded Recorded	12 4 3 4 4 2	Projectile Projectile Projectile Projectile Projectile	S to N S to N N to S N to S S to N	N/K N/K N/K N/K N/K	13-Oct, 22:02 13-Oct, 22:03 13-Oct, 22:03 13-Oct, 22:07 13-Oct, 22:08
2-4km E Recorded 1 Projectile N to S N/K 13-Oct, 22:12		2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE	Recorded Recorded Recorded Recorded Recorded Recorded	$     \begin{array}{r}       12 \\       4 \\       3 \\       4 \\       4 \\       2 \\       1     \end{array} $	Projectile Projectile Projectile Projectile Projectile Projectile	S to N           S to N           N to S           N to S           S to N           N to S	N/K N/K N/K N/K N/K	13-Oct, 22:02 13-Oct, 22:03 13-Oct, 22:03 13-Oct, 22:07 13-Oct, 22:08 13-Oct, 22:11
		2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE	Recorded Recorded Recorded Recorded Recorded Recorded	$     \begin{array}{r}       12 \\       4 \\       3 \\       4 \\       4 \\       2 \\       1     \end{array} $	Projectile Projectile Projectile Projectile Projectile Projectile Projectile	S to N           S to N           N to S           N to S           S to N           N to S	N/K N/K N/K N/K N/K N/K	13-Oct, 22:02 13-Oct, 22:03 13-Oct, 22:03 13-Oct, 22:07 13-Oct, 22:08 13-Oct, 22:11
2-4km ENE   Recorded   3   Projectile   N to S   N/K   13-Oct, 22:13		2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE 2-4km ESE 2-4km ESE 2-4km ESE 2-4km ESE 2-4km E	Recorded Recorded Recorded Recorded Recorded Recorded Recorded	$     \begin{array}{r}       12 \\       4 \\       3 \\       4 \\       4 \\       2 \\       1 \\       1     \end{array} $	Projectile Projectile Projectile Projectile Projectile Projectile Projectile	S to N S to N N to S S to N N to S S to N S to N	N/K N/K N/K N/K N/K N/K	13-Oct, 22:02 13-Oct, 22:03 13-Oct, 22:03 13-Oct, 22:07 13-Oct, 22:08 13-Oct, 22:11 13-Oct, 22:12
		2-4km ENE 2-4km ESE 2-4km ESE 2-4km ENE 2-4km ESE 2-4km ESE 2-4km ESE 2-4km ESE 2-4km E 2-4km E 2-4km E	Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded Recorded	$     \begin{array}{r}       12 \\       4 \\       3 \\       4 \\       4 \\       2 \\       1 \\       1 \\       1 \\       1 \\       1     \end{array} $	Projectile Projectile Projectile Projectile Projectile Projectile Projectile Projectile	S to N           S to N           N to S           S to N           N to S           S to N           S to N	N/K N/K N/K N/K N/K N/K N/K N/K	13-Oct, 22:02 13-Oct, 22:03 13-Oct, 22:03 13-Oct, 22:07 13-Oct, 22:08 13-Oct, 22:11 13-Oct, 22:12 13-Oct, 22:12 13-Oct, 22:12

				D · ···		NT/17	
	2-4km ESE	Recorded	2	Projectile	S to N	N/K	13-Oct, 22:13
	-4km ENE	Recorded	3	Projectile	N to S	N/K	13-Oct, 22:14
	2-4km ESE	Recorded	2 14	Projectile	S to N	N/K	13-Oct, 22:14
	2-4km ESE	Recorded	14	Projectile	S to N	N/K N/K	13-Oct, 22:16 13-Oct, 22:17
	2-4km ESE 2-4km ESE	Recorded		Projectile	S to N		,
		Recorded Recorded	6 1	Projectile Projectile	S to N	N/K N/K	13-Oct, 22:18
	2-4km ESE		24		S to N	N/K N/K	13-Oct, 22:19
	2-4km ESE 2-4km ESE	Recorded	17	Projectile Projectile	S to N S to N	N/K N/K	13-Oct, 22:20 13-Oct, 22:22
	2-4km ESE 2-4km ESE	Recorded Recorded	33	Projectile	S to N	N/K N/K	13-Oct, 22:22 13-Oct, 22:23
	2-4km ESE	Recorded	10	Projectile	S to N	N/K N/K	
	2-4km ESE	Recorded	10	Projectile	S to N	N/K N/K	13-Oct, 22:24 13-Oct, 22:25
	2-4km ESE 2-4km ESE	Recorded	4	Projectile	S to N	N/K	13-Oct, 22:25
	2-4km ESE	Recorded	1	Explosion	Impact	N/K	13-Oct, 22:20
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	13-Oct, 22:20
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	13-Oct, 22:28
	2-4km ESE	Recorded	2	Projectile	S to N	N/K	13-Oct, 22:30
	2-4km ESE	Recorded	3	Explosion	Impact	N/K	13-Oct, 22:30
	-4km ENE	Recorded	7	Projectile	S to N	N/K	13-Oct, 22:30
	-4km ENE	Recorded	16	Projectile	N to S	N/K	13-Oct, 22:31
	2-4km ESE	Recorded	2	Explosion	Impact	N/K	13-Oct, 22:31
	-4km ENE	Recorded	2	Projectile	S to N	N/K	13-Oct, 22:31
	2-4km ESE	Recorded	3	Explosion	Impact	N/K	13-Oct, 22:32
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	13-Oct, 22:32
	-4km ENE	Recorded	6	Projectile	S to N	N/K	13-Oct, 22:33
	2-4km ESE	Recorded	2	Projectile	N to S	N/K	13-Oct, 22:33
	2-4km ESE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 22:33
2	-4km ENE	Recorded	4	Projectile	S to N	N/K	13-Oct, 22:34
2	2-4km ESE	Recorded	3	Projectile	N to S	N/K	13-Oct, 22:34
2	2-4km ESE	Recorded	5	Explosion	Impact	N/K	13-Oct, 22:34
2	2-4km ESE	Recorded	3	Projectile	S to N	N/K	13-Oct, 22:35
2	2-4km ESE	Recorded	5	Explosion	Impact	N/K	13-Oct, 22:35
	2-4km E	Recorded	3	Projectile	N to S	N/K	13-Oct, 22:36
	2-4km ESE	Recorded	2	Projectile	S to N	N/K	13-Oct, 22:37
	2-4km ESE	Recorded	4	Explosion	Impact	N/K	13-Oct, 22:37
	-4km ENE	Recorded	2	Projectile	S to N	N/K	13-Oct, 22:38
	2-4km ESE	Recorded	2	Projectile	S to N	N/K	13-Oct, 22:41
	2-4km ESE	Recorded	3	Projectile	S to N	N/K	13-Oct, 22:42
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	13-Oct, 22:43
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	13-Oct, 22:44
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	13-Oct, 22:46
	2-4km ESE	Recorded	1	Explosion	Impact	N/K	13-Oct, 22:46
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	13-Oct, 22:47
2	2-4km ESE	Recorded	1	Explosion	Impact	N/K	13-Oct, 22:47
	2-4km E	Recorded	2	Projectile	S to N	N/K N/K	13-Oct, 22:48
	2-4km E	Recorded Recorded	7	Projectile	S to N	N/K N/K	13-Oct, 23:08
	2-4km ESE			Explosion Projectile	Undetermined S to N	N/K N/K	13-Oct, 23:13
	2-4km ESE 2-4km ESE	Recorded Recorded	1	Projectile Projectile	S to N	N/K N/K	13-Oct, 23:13
		Recorded	1	Illumination			13-Oct, 23:14
2	2-4km ESE	Recorded	1	flare	S to N	N/K	13-Oct, 23:14
	2-4km E	Recorded	8	Projectile	N to S	N/K	13-Oct, 23:15
	2-4km E	Recorded	7	Projectile	S to N	N/K	13-Oct, 23:15
	2-4km E	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 23:15
	2-4km E	Recorded	2	Projectile	S to N	N/K	13-Oct, 23:16
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 23:16
	2-4km E	Recorded	4	Projectile	S to N	N/K	13-Oct, 23:17
	2-4km E	Recorded	19	Explosion	Undetermined	N/K	13-Oct, 23:17
	2-4km E	Recorded	29	Explosion	Undetermined	N/K	13-Oct, 23:18
	2-4km E	Recorded	4	Projectile	S to N	N/K	13-Oct, 23:18
	2-4km E	Recorded	1	Burst	S to N	N/K	13-Oct, 23:18
	2-4km E	Recorded	10	Projectile	S to N	N/K	13-Oct, 23:19
	2-4km E	Recorded	13	Projectile	N to S	N/K	13-Oct, 23:19
2	2-4km ESE	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 23:19

	2-4km E	Recorded	5	Projectile	S to N	N/K	13-Oct, 23:20
	2-4km E	Recorded	12	Projectile	N to S	N/K	13-Oct, 23:31
	2-4km E	Recorded	1	Muzzle flash		N/K	13-Oct, 23:31
	2-4km E	Recorded	13	Projectile	N to S	N/K	13-Oct, 23:39
	2-4km E	Recorded	6	Projectile	S to N	N/K	13-Oct, 23:39
	2-4km E	Recorded	3	Projectile	N to S	N/K	13-Oct, 23:40
	2-4km E	Recorded	3	Projectile	S to N	N/K	13-Oct, 23:40
	2-4km ESE	Recorded	2	Projectile	S to N	N/K	13-Oct, 23:49
	2-4km E	Recorded	2	Projectile	S to N	N/K	13-Oct, 23:50
	2-4km E	Recorded	2	Explosion	Impact	N/K	13-Oct, 23:50
	2-4km E	Recorded	2	Projectile	N to S	N/K	13-Oct, 23:51
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	14-Oct, 00:03
	2-4km E	Recorded	1	Explosion	Undetermined	N/K	14-Oct, 00:05
	2-4km ESE	Recorded	15	Projectile	S to N	N/K	14-Oct, 00:10
	2-4km E	Recorded	6	Projectile	N to S	N/K	14-Oct, 00:29
	2-4km ESE	Recorded	1	Projectile	S to N	N/K	14-Oct, 00:46
	2-4km ENE	Recorded	16	Projectile	N to S	N/K	14-Oct, 00:55
	2-4km E	Recorded	12	Projectile	N to S	N/K	14-Oct, 00:56
	2-4km E	Recorded	7	Projectile	N to S	N/K	14-Oct, 01:14
	2-4km ESE	Recorded	3	Projectile	S to N	N/K	14-Oct, 01:53
	2-4km E	Recorded	3	Projectile	S to N	N/K	14-Oct, 01:55
	2-4km ESE	Recorded	3	Projectile	S to N	N/K	14-Oct, 01:58
	2-4km E	Recorded	10	Projectile	N to S	N/K	14-Oct, 02:03
	2-4km E	Recorded	3	Projectile	N to S	N/K	14-Oct, 02:04
	2-4km E	Recorded	10	Projectile	N to S	N/K	14-Oct, 02:05
	2-4km E	Recorded	2	Projectile	N to S	N/K	14-Oct, 02:16
	2-4km E	Recorded	10	Projectile	N to S	N/K	14-Oct, 02:17
	2-4km ESE	Recorded	3	Projectile	S to N	N/K	14-Oct, 02:20
	2-4km E	Recorded	1	Projectile	S to N	N/K	14-Oct, 02:20
	2-4km E	Recorded	6	Projectile	N to S	N/K N/K	
	2-4km ESE	Recorded	10	Projectile	S to N	N/K	14-Oct, 02:46 14-Oct, 03:23
				U U			
	2-4km E 2-4km ENE	Recorded Recorded	10 6	Projectile Projectile	N to S N to S	N/K N/K	14-Oct, 03:36 14-Oct, 03:53
			3	Projectile			,
	2-4km ENE 2-4km ENE	Recorded Recorded	4	Projectile	N to S N to S	N/K N/K	14-Oct, 03:54 14-Oct, 03:56
	2-4km ENE 2-4km E	Recorded	5	Projectile	N to S	N/K N/K	14-Oct, 03:30
	2-4km E	Recorded	4	Projectile	N to S	N/K N/K	14-Oct, 04:10
	2-4km E	Recorded	6	Projectile	N to S	N/K	14-Oct, 04:11 14-Oct, 04:13
	2-4km E	Recorded	7	Projectile	N to S	N/K	14-Oct, 04:13
	2-4km E	Recorded	1	Projectile	N to S	N/K N/K	14-Oct, 04:17 14-Oct, 04:18
	2-4km E	Recorded	11	Projectile	N to S	N/K N/K	14-Oct, 04:18 14-Oct, 04:23
					Undetermined	N/K N/K	
	2-4km E	Recorded	1	Explosion	S to N	N/K N/K	14-Oct, 04:39
	2-4km ESE	Recorded	1	Projectile			14-Oct, 04:51
	2-4km ENE	Recorded	1	Projectile	N to S	N/K	14-Oct, 05:31
	2-4km ENE 2-4km ENE	Recorded Recorded	1 2	Projectile Projectile	N to S N to S	N/K N/K	14-Oct, 05:32 14-Oct, 05:33
	2-4km ENE 2-4km ENE	Recorded	2	Projectile	N to S	N/K N/K	
SMM camera in	3-5km SSE	Recorded	3	Projectile	WSW to ENE	N/K N/K	14-Oct, 05:35 13-Oct, 22:01
Krasnohorivka			5	5			13-Oct, 22:01 13-Oct, 22:02
(government-	3-5km SSE 3-5km SSW	Recorded Recorded	1	Projectile Projectile	WSW to ENE E to W	N/K N/K	13-Oct, 22:02
controlled, 21km	3-5km SSE	Recorded	9	Projectile	E to W ENE to WSW	N/K N/K	13-Oct, 22:02 13-Oct, 22:03
W of Donetsk)	3-5km SSE	Recorded	9	Muzzle flash	ENE IO WSW	N/K N/K	13-Oct, 22:03
(i of Donetsk)					W to E		
	3-5km SSE 3-5km SSE	Recorded Recorded	1	Projectile Muzzle flash	WUE	N/K N/K	13-Oct, 22:05 13-Oct, 22:05
				Explosion	Undetermined		
	4-5km SE	Recorded Recorded	1	Projectile	Undetermined	N/K N/K	13-Oct, 22:06
	3-5km SSE		1		NE to SW		13-Oct, 22:36
	3-5km SSE	Recorded	2	Projectile	NNE to SSW	N/K	13-Oct, 22:37
	3-5km SSE	Recorded	3	Projectile	SW to NE	N/K	13-Oct, 22:37
	3-5km SSE	Recorded	2	Projectile	E to W	N/K	13-Oct, 22:38
	2-4km SSE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 22:38
CMM ·	2-4km SSE	Recorded	1	Projectile	SW to NE	N/K	13-Oct, 22:38
SMM camera in	2-4km SW	Recorded	3	Projectile	ESE to WNW	N/K	13-Oct, 19:21
Kriakivka (government-	3-5km SSW	Recorded	1	Projectile	In vertical flight	N/K	13-Oct, 20:32
	3-5km SSW	Recorded	6	Projectile	WNW to ESE	N/K	13-Oct, 20:33

controlled, 38km	3-5km SSW	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 20:33
NW of Luhansk)	3-5km SSW	Recorded	1	Projectile	ESE to WNW	N/K N/K	13-Oct, 20:33
SMM camera E of	2-4km NE	Recorded	1	Explosion	Airburst	N/K N/K	13-Oct, 17:50
Lomakyne	2-4km NE	Recorded	1	Explosion	Impact	N/K	13-Oct, 18:20
(government-	2-4km NE	Recorded	13	Projectile	NW to SE	N/K	13-Oct, 18:38
controlled, 15km	2-4km NE	Recorded	18	Projectile	NW to SE	N/K	13-Oct, 18:39
NE of Mariupol)	2-4km NE	Recorded	12	Projectile	NW to SE	N/K	13-Oct, 18:40
	2-4km NE	Recorded	3	Projectile	NW to SE	N/K N/K	13-Oct, 18:40
	1-3km NE	Recorded	1	Explosion	Undetermined	N/K N/K	13-Oct, 18:59
	2-4km NE	Recorded	4	Projectile	NW to SE	N/K N/K	13-Oct, 19:06
	2-4km NE	Recorded	8	Projectile	W to E	N/K N/K	13-Oct, 13:00
_	2-4km NE	Recorded	3	Projectile	W to E	N/K N/K	13-Oct, 22:23
-	2-4km NE	Recorded	2	Projectile	W to E	N/K N/K	13-Oct, 22:24
	2-4km NE	Recorded	3	Explosion	Undetermined	N/K N/K	13-Oct, 22:30
	2-4km NE	Recorded	4	Muzzle flash	Undetermined	N/K	13-Oct, 22:30
	2-4km NE	Recorded	6	Projectile	W to E	N/K	13-Oct, 22:31
-	2-4km NE	Recorded	1	Explosion	Undetermined	N/K N/K	13-Oct, 22:32
-	2-4km NE	Recorded	6	Projectile	W to E	N/K N/K	13-Oct, 22:32
-	2-4km NE	Recorded	3	Projectile	W to E W to E	N/K N/K	13-Oct, 22:33
-	2-4km NE	Recorded	22	Explosion	Undetermined	N/K N/K	13-Oct, 22:34
-	2-4km NE	Recorded	22	Muzzle flash	Undetermined	N/K N/K	13-Oct, 22:34
-		Recorded	8	Projectile	W to E	N/K N/K	
-	2-4km NE	Recorded					13-Oct, 22:35
-	2-4km NE		6	Explosion	Undetermined	N/K	13-Oct, 22:35
_	2-4km NE	Recorded	8	Explosion	Undetermined	N/K	13-Oct, 22:37
-	2-4km NE	Recorded	4	Explosion Illumination	Undetermined	N/K	13-Oct, 22:39
	2-4km NE	Recorded	1	flare	In vertical flight	N/K	13-Oct, 23:14
	2-4km NE	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 23:16
	2-4km NE	Recorded	7	Explosion	Undetermined	N/K	13-Oct, 23:17
	2-4km NE	Recorded	19	Explosion	Undetermined	N/K	13-Oct, 23:18
	2-4km NE	Recorded	5	Projectile	W to E	N/K	13-Oct, 23:18
	2-4km NE	Recorded	1	Illumination flare	In vertical flight	N/K	14-Oct, 05:25
SMM camera at	2-4km E	Recorded	1	Muzzle flash	S to N	N/K	13-Oct, 18:51
entry-exit	2-4km E	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 19:14
checkpoint in	2-4km E	Recorded	2	Projectile	N to S	N/K	13-Oct, 19:14
Maiorsk	2-3km E	Recorded	14	Projectile	N to S	N/K	13-Oct, 20:46
(government-	2-3km E	Recorded	14	Explosion	Airburst	N/K	13-Oct, 20:46
controlled, 45km	2-3km E	Recorded	2	Projectile	S to N	N/K	13-Oct, 20:52
NE of Donetsk)	2-3km E	Recorded	2	Projectile	N to S	N/K	13-Oct, 20:56
	1-2km E	Recorded	1	Illumination flare	In vertical flight	N/K	13-Oct, 20:57
	1-2km E	Recorded	1	Illumination flare	In vertical flight	N/K	13-Oct, 21:04
	2-4km NNE	Recorded	15	Projectile	E to W	N/K	13-Oct, 19:01
	2-4km NNE	Recorded	2	Projectile	E to W	N/K	13-Oct, 19:02
	2-4km NNE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 19:09
	2-4km N	Recorded	2	Explosion	Undetermined	N/K	13-Oct, 19:19
	2-3km NNE	Recorded	1	Projectile	E to W	N/K	13-Oct, 20:09
	2-3km NNE	Recorded	1	Projectile	ESE to WNW	N/K	13-Oct, 20:10
	2-3km NNE	Recorded	4	Burst	In vertical flight	N/K	13-Oct, 20:44
	2-3km NNE	Recorded	3	Burst	In vertical flight	N/K	13-Oct, 20:45
	2-3km NNE	Recorded	2	Projectile	E to W	N/K	13-Oct, 20:45
	2-4km NNE	Recorded	1	Projectile	WSW to ENE	N/K	13-Oct, 21:50
	2-4km NNE	Recorded	4	Projectile	WSW to ENE	N/K	13-Oct, 21:51
	2-4km NNE	Recorded	1	Projectile	E to W	N/K	13-Oct, 21:59
	2-4km NNE	Recorded	1	Projectile	E to W	N/K	13-Oct, 22:07
	2-4km NNE	Recorded	1	Projectile	WSW to ENE	N/K	13-Oct, 22:07
	2-4km NNE	Recorded	7	Projectile	ESE to WNW	N/K	13-Oct, 22:17
F	2-4km NNE	Recorded	1	Explosion	Outgoing	N/K	13-Oct, 23:53
F	2-4km NNE	Recorded	10	Projectile	W to E	N/K	13-Oct, 23:53
	2-4km NNE	Recorded	8	Projectile	W to E	N/K	13-Oct, 23:54
	2-4km NNE	Recorded	1	Projectile	W to E	N/K	14-Oct, 00:56
	2-4km NNE	Recorded	14	Projectile	W to E	N/K	14-Oct, 01:49
							,

2-4km NNE         Recorded         1         Projectile         E to W         N/K         H-20(r. 0.4-22           SMC camera 1         2-4km SSE         Recorded         2         Projectile         SE to NNW         N/K         13-Oct, 2102           cohtrophin         2-4km SSE         Recorded         2         Projectile         W to E         N/K         13-Oct, 2123           cyorenneti- controlled, 25km         2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 2230           2-4km S         Recorded         4         Projectile         W to E         N/K         13-Oct, 2233           2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 2234           2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 2235           2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 2235           2-4km S         Recorded         1         Explosion         Impact         N/K         13-Oct, 2355           2-4km S         Recorded         1         Projectile         W to E         N/K         13-Oct, 2351		2-4km NNE	Recorded	3	Muzzle flash	1	N/K	14-Oct, 01:49
SMM camera at only-exit         2-4km SSE         Recorded         4         Projectile         SUM         NK         13-Oct, 20:9           checkpoint in psycholevy         2-4km SSE         Recorded         2         Projectile         W to F         NK         13-Oct, 20:25           government-controlled, SSE         2-34km SSE         Recorded         4         Projectile         W to F         NK         13-Oct, 22:32           SME of Mariupol         2-34km SS         Recorded         3         Projectile         W to F         NK         13-Oct, 22:33           SME of Mariupol         2-34km SS         Recorded         4         Projectile         W to F         NK         13-Oct, 22:34           2-44km S         Recorded         2         Projectile         W to F         NK         13-Oct, 22:34           2-44km S         Recorded         2         Projectile         W to F         NK         13-Oct, 22:35           2-44km S         Recorded         2         Projectile         W to F         NK         13-Oct, 22:36           2-44km S         Recorded         1         Explosion         Undersmined         NK         14-Oct, 05:16           2-44km S         Recorded         1         Improjectile <td></td> <td></td> <td></td> <td></td> <td></td> <td>E to W</td> <td></td> <td></td>						E to W		
entry-exit (cyceprine):         2-4km SSE         Recorded 1         Projectile         Fu W         N/K         H-0cr, 20:55           2-8km SSE         Recorded 2         3         Projectile         W to E         N/K         H-0cr, 20:55           (governnet):         2-4km SS         Recorded 2         Fusphone         W to E         N/K         H-0cr, 20:55           (governnet):         2-4km S         Recorded 2         Fusphone         W to E         N/K         H-0cr, 20:55           2-4km S         Recorded 2         Projectile         W to E         N/K         H-0cr, 22:54           2-4km S         Recorded 2         Projectile         W to E         N/K         H-0cr, 22:54           2-4km S         Recorded 2         Projectile         W to E         N/K         H-0cr, 22:56           2-4km S         Recorded 2         Projectile         W to E         N/K         H-0cr, 22:56           2-4km S         Recorded 3         Projectile         W to E         N/K         H-0cr, 22:56           2-4km S         Recorded 1         Projectile         W to E         N/K         H-0cr, 22:56           2-4km S         Recorded 1         Projectile         N to S         N/K         H-0cr, 02:57	SMM camera at							
checkpoint in pyshchevyk         2-4km SSE         Recorded         3         Projecitie         W to E         NK         13-Oct, 21:00           (government- controlled, 25km         2-4km S         Recorded         4         Eryplosion         Undetermined         NK         13-Oct, 22:30           NE of Mariupol         2-4km S         Recorded         3         Projectile         W to E         NK         13-Oct, 22:30           2-4km S         Recorded         4         Explosion         Undetermined         NK         13-Oct, 22:34           2-4km S         Recorded         7         Explosion         Undetermined         NK         13-Oct, 22:34           2-4km S         Recorded         7         Explosion         Undetermined         NK         13-Oct, 22:35           2-4km S         Recorded         2         Projectile         W to E         NK         13-Oct, 22:36           2-4km S         Recorded         1         Explosion         Undetermined         NK         13-Oct, 22:36           2-4km S         Recorded         1         Projectile         W to E         NK         14-Oct, 05:19           2-4km S         Recorded         1         Projectile         NK         14-Oct, 05:19					5			
Pyshchevyk (government- controlled, 25km)         2-4km S         Recorded         4         Projecile         W to E         NK         13-Oct, 22-32           NE of Marupol)         2-4km S         Recorded         2         Projecile         W to T         NK         13-Oct, 22-32           2-4km S         Recorded         4         Projecile         W to T         NK         13-Oct, 22-32           2-4km S         Recorded         4         Projecile         W to T         NK         13-Oct, 22-33           2-4km S         Recorded         1         Explosion         Undeermined         NK         13-Oct, 22-33           2-4km S         Recorded         2         Explosion         Undeermined         NK         13-Oct, 22-33           2-4km S         Recorded         2         Explosion         Undeermined         NK         13-Oct, 22-30           2-4km S         Recorded         1         Explosion         Undeermined         NK         13-Oct, 22-32           2-4km S         Recorded         1         Projectile         W to E         NK         13-Oct, 23-30           2-4km S         Recorded         1         Projectile         N to E         NK         14-Oct, 05:16								
(government- controlled, 25kn NE of Mariupol) NE of Mariupol) NE of Mariupol) NE of Mariupol) NE of Mariupol) NE of Mariupol) NE of Mariupol) 2-4km S Recorded 4 Explosion 2-4km S Recorded 4 Explosion 2-4km S Recorded 4 Explosion 2-4km S Recorded 4 Projectile W to E NK 13-Oct, 22:3 2-4km S Recorded 5 Explosion Undetermined NK 13-Oct, 22:3 2-4km S Recorded 5 Explosion Undetermined NK 13-Oct, 22:3 2-4km S Recorded 5 Explosion 1-24km S Recorded 6 Projectile 2-4km S Recorded 6 Projectile 2-4km S Recorded 6 Projectile 2-4km S Recorded 6 Projectile 2-4km S Recorded 1 Explosion 1-24km N Recorded 1 Projectile 2-4km S Recorded 1 Projectile 2-4km S Recorded 1 Projectile 2-4km S Recorded 1 Projectile 2-4km N Recorded 1 Projectile 2-4km N Recorded 1 Projectile N to S N/K 14-Oct, 05:16 2-4km N Recorded 1 Projectile N to S N/K 14-Oct, 05:17 2-4km N Recorded 1 Projectile N to S N/K 14-Oct, 05:18 2-4km N Recorded 1 Projectile N to S N/K 13-Oct, 18:21 N/K 13-Oct, 18:22 N/K 13-Oct, 18:21 N/K 13-Oct, 18:21 N/K 13-Oct, 18:21 N/K 13-Oct, 18:21 N/K 13-Oct, 18:21 N/K 13-Oct, 18:22 N/K 13-Oct, 18:22 N/K 13-Oct, 19:24 N/K 13-Oct, 19:24								
Controlled, 25km         2-4km S         Recorded         4         Projectile         W to E         NK         13-Oct, 22:3           NE of Mariupol         2-4km S         Recorded         4         Projectile         W to E         NK         13-Oct, 22:33           2-4km S         Recorded         7         Explosion         Undetermined         NK         13-Oct, 22:34           2-4km S         Recorded         2         Projectile         W to E         NK         13-Oct, 22:35           2-4km S         Recorded         2         Frojectile         W to E         NK         13-Oct, 22:35           2-4km S         Recorded         1         Frojectile         W to E         NK         13-Oct, 22:36           2-4km S         Recorded         1         Frojectile         N to E         NK         13-Oct, 22:39           2-4km S         Recorded         1         Projectile         N to S         NK         14-Oct, 05:10           2-4km S         Recorded         1         Projectile         N to S         NK         14-Oct, 05:10           12-4km N         Recorded         1         Projectile         N to S         NK         13-Oct, 18:12           SMM camera in         S								
NE of Mariupol)         2:4km S         Recorded         4         Explosion         Undetermined         NK         13:Oct, 22:33           2:4km S         Recorded         2         Projectile         W to E         N/K         13:Oct, 22:34           2:4km S         Recorded         2         Projectile         W to E         N/K         13:Oct, 22:34           2:4km S         Recorded         2         Projectile         W to E         N/K         13:Oct, 22:35           2:4km S         Recorded         2         Projectile         W to E         N/K         13:Oct, 22:35           2:4km S         Recorded         1         Explosion         Undetermined         N/K         13:Oct, 22:36           2:4km S         Recorded         1         Explosion         Undetermined         N/K         14:Oct, 05:19           2:4km S         Recorded         1         Explosion         Undetermined         N/K         14:Oct, 05:19           2:4km S         Recorded         1         Immanation         In to S         N/K         14:Oct, 05:18           2:4km N         Recorded         1         Projectile         N to S         N/K         13:Oct, 18:12           Strokyne (Okm         2:4km N </td <td>controlled, 25km</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	controlled, 25km							
2-4km S         Recorded         4         Projectile         W to E         N/K         13-Oct, 22:33           2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 22:33           2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 22:35           2-4km S         Recorded         3         Projectile         W to E         N/K         13-Oct, 22:35           2-4km S         Recorded         1         Epolosion         Inpact         N/K         13-Oct, 22:35           2-4km S         Recorded         1         Epolosion         Inpact         N/K         14-Oct, 05:16           2-4km S         Recorded         1         Projectile         N to S         N/K         14-Oct, 05:19           2-4km S         Recorded         1         Projectile         N to S         N/K         14-Oct, 05:19           SMM camera         Recorded         1         Projectile         N to S         N/K         13-Oct, 18:12           Shynkyne (0km         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           Shynkyne (0km         2-4km N         Rec	NE of Mariupol)					Undetermined		
2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 22:33           2-4km S         Recorded         2         Projectile         W to E         N/K         13-Oct, 22:33           2-4km S         Recorded         3         Projectile         W to E         N/K         13-Oct, 22:36           2-4km S         Recorded         5         Projectile         W to E         N/K         14-Oct, 05:16           2-4km S         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:16           2-4km S         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:16           2-4km S         Recorded         1         Projectile         N to S         N/K         14-Oct, 05:19           SMM sumera         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           Ikm SW of         2-4km N         Recorded         1         Illumination         In vertical flight         N/K         13-Oct, 18:12           SMM camera in         2-4km N         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 19:02 <tr< td=""><td></td><td></td><td></td><td>4</td><td></td><td></td><td></td><td></td></tr<>				4				
2-4km S         Recorded         5         Explosion         Undetermined         Nrk         13-Oct, 22:35           2-4km S         Recorded         2         Projectile         Et oW         Nrk         13-Oct, 22:35           2-4km S         Recorded         1         Explosion         Impact         Nrk         13-Oct, 22:35           2-4km S         Recorded         1         Explosion         Impact         Nrk         14-Oct, 05:16           2-4km S         Recorded         6         Projectile         N to S         Nrk         14-Oct, 05:16           2-4km S         Recorded         1         Projectile         N to S         Nrk         14-Oct, 05:16           2-4km S         Recorded         1         Projectile         N to S         Nrk         13-Oct, 18:12           Xim Svo         2-4km N         Recorded         1         Projectile         SE to NW         NrK         13-Oct, 18:12           Shyrokyne (20km         2-4km N         Recorded         1         Immination         In vertical flight         NrK         13-Oct, 18:12           2-4km N         Recorded         1         Projectile         SE to NW         NrK         13-Oct, 20:32           Linhanski		2-4km S	Recorded	7	Explosion	Undetermined	N/K	13-Oct, 22:34
2-44m S         Recorded         2         Projectile         W to E         N:K         13-Oct, 22:36           2-44m S         Recorded         1         Explosion         Impact         N/K         13-Oct, 22:36           2-44m S         Recorded         5         Projectile         W to E         N/K         14-Oct, 02:16           2-44m S         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 05:16           2-44m S         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:16           2-44m S         Recorded         1         Projectile         N to S         N/K         14-Oct, 05:16           1Lm SW of         2-44m N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           1Lm SW of         2-44m N         Recorded         1         Muzzle flash         In         N/K         13-Oct, 18:21           SMM camera in         2-44m N         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 19:21           Lubanska         1-3km SW         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 19:26 <td></td> <td>2-4km S</td> <td>Recorded</td> <td>2</td> <td>Projectile</td> <td>W to E</td> <td>N/K</td> <td>13-Oct, 22:34</td>		2-4km S	Recorded	2	Projectile	W to E	N/K	13-Oct, 22:34
2.4km SS         Recorded         3         Projectile         E to W         N/K         13-Oct, 22:36           2.4km S         Recorded         1         Explosion         Impact         N/K         13-Oct, 22:36           2.4km S         Recorded         1         Explosion         Undetermined         N/K         14-Oct, 05:16           2.4km S         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:19           2.4km SE         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:19           2.4km SE         Recorded         1         Projectile         N to S         N/K         14-Oct, 05:19           2.4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:16           2.4km N         Recorded         1         Brujecile         SE to NW         N/K         13-Oct, 18:21           2.4km N         Recorded         1         Brujecile         SE to NW         N/K         13-Oct, 18:23           Stanysia         2.4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 23:26           Controlici, 16km         1		2-4km S	Recorded	5	Explosion	Undetermined		13-Oct, 22:35
2-4km S         Recorded         I         Explosion         Impact         N/K         13-Oct, 22:39           2-4km S         Recorded         5         Projectile         W to E         N/K         14-Oct, 05:16           2-4km S         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:16           2-4km S         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:19           2-4km S         Recorded         1         Projectile         N to S         N/K         14-Oct, 05:25           SMM camera         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           SMrokone (20km         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:21           SMM camera in         2-4km N         Recorded         1         Ellumination         In vertical flight         N/K         13-Oct, 18:21           Government-         1-3km SW         Recorded         1         Ellumination         In vertical flight         N/K         13-Oct, 19:05           Svitlodarsk         2-4km E         Recorded         13         Projectile         In ver			Recorded	2			N/K	13-Oct, 22:35
2-4km S         Recorded         5         Projectile         Win E         N/K         14-Oct. 05:16           2-4km S         Recorded         1         Explosion         Undetermined         N/K         14-Oct. 05:16           2-4km S         Recorded         6         Projectile         N to S         N/K         14-Oct. 05:19           2-4km S         Recorded         6         Projectile         N to S         N/K         14-Oct. 05:15           SMM camera         2-4km N         Recorded         1         Illumination         In vertical flight         N/K         13-Oct. 18:12           Ikm SW of         2-4km N         Recorded         1         Muzzle flash         N/K         13-Oct. 18:12           Shyrokyne (20km         2-4km N         Recorded         1         Horjectile         SE to NW         N/K         13-Oct. 18:21           Stanytsia         2-4km N         Recorded         1         Explosion         Undetermined         N/K         13-Oct. 18:23           Stanytsia         1-3km SW         Recorded         1         Projectile         Is to SW         (mabet to assess whether inside or outside the disengagement area)         N/K         13-Oct. 20:32           (government-cottrolled, 15km SW         2-4km					V	E to W		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								
2-4km S         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:18           2-4km SS         Recorded         1         Illumination flare         In vertical flight         N/K         14-Oct, 05:19           SMM camera         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           Shyrokyne (20km         2-4km N         Recorded         1         Muzzle flash         N/K         13-Oct, 18:12           E of Mariupol         2-4km N         Recorded         1         Illumination flare         In vertical flight         N/K         13-Oct, 18:20           E of Mariupol         2-4km N         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 18:20           Luhanska         1         Projectile         In vertical flight         N/K         13-Oct, 20:32           Controlled, 16km         1         Projectile         In vertical flight         N/K         13-Oct, 19:26           SVitdodarsk         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 19:28           Svitdodarsk         2-4km E         Recorded         1         Projectile					V			
2-4km SSE         Recorded         6         Projectile         N to S         N/K         14-Oct, 05:19           2-4km S         Recorded         1         Illumination flare         In vertical flight         N/K         14-Oct, 05:25           SMM camera Ikm SW of         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           Shyrokyne (20km         2-4km N         Recorded         1         Muzzle flash         N/K         13-Oct, 18:12           2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:23           SMM camera in Stanytsia Luhanska (government- controlled, 16km         1-3km SW         Recorded         1         Projectile         NE to SW         N/K         13-Oct, 18:23           SMM camera in Stanytsia         1-3km SW         Recorded         3         Projectile         In vertical flight in side or outside the dissengagement area)         N/K         13-Oct, 19:24           SMM camera in Stanytsia         2-4km E         Recorded         3         Projectile         In vertical flight in vertical flight         N/K         13-Oct, 19:24           Controlled, 75km         2-4km E         Recorded         13         Projectile         In vertical flight								
2-4km S         Recorded         1         Illumination flare         In vertical flight         N/K         14-Oct, 05:25           SMM camera Ikm SW of Shyrokyne (20km         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           2-4km N         Recorded         1         Illumination flare         In vertical flight         N/K         13-Oct, 18:21           2-4km N         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 18:23           Stanysia Luhanska (government.         1-3km SW         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 20:32           SMM camera in SWidoarsk         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 19:26           SWM camera in Swidoarsk         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 19:26           Suidoarsk         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 19:26 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
2-4km N         Recorded         1         flare         In vertical flight         N/K         14-Oct, 05:25           Ikm SW of         2-4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           Shyrokyne (20km         2-4km N         Recorded         1         Muzzle flash         N/K         13-Oct, 18:12           Shyrokyne (20km         2-4km N         Recorded         1         Illumination         In vertical flight         N/K         13-Oct, 18:12           SMM camera in         2-4km N         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 18:23           SMM camera in         1-3km SW         Recorded         1         Projectile         inside or outside usses whether areas         N/K         13-Oct, 19:24           (government-controlled, 16km         1         Projectile         In vertical flight         N/K         13-Oct, 19:24           Svitodarsk         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 19:24           Svitodarsk         2-4km E         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 19:41           NE of		2-4km SSE	Recorded	6	J	N to S	N/K	14-Oct, 05:19
Ikm SW of Shyrokyne (20km         2-4km N         Recorded         1         Muzzle flash         N/K         13-Oct, 18:12           2.4km N         Recorded         1         Projectile         SE to NW         N/K         13-Oct, 18:12           2.4km N         Recorded         1         Illumination flare         In vertical flight         N/K         13-Oct, 18:21           2.4km N         Recorded         1         Explosion         Indetermined         N/K         13-Oct, 18:23           SMM camera in Starytsia Luhanska (government- Ontrolled, 16km         1-3km SW         Recorded         1         Projectile         In vertical flight         N/K         13-Oct, 20:32           SMM camera in Svitodarsk (government- controlled, 16km         1-3km SW         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 20:32           Government- controlled, 16km         2-4km E         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 19:24           2.4km ES         Recorded         13         Projectile         In vertical flight         N/K         13-Oct, 23:26           2.4km ES         Recorded         14         Projectile         In vertical flight         N/K         13-Oct, 23:26 </td <td></td> <td></td> <td></td> <td>1</td> <td>flare</td> <td></td> <td></td> <td>14-Oct, 05:25</td>				1	flare			14-Oct, 05:25
Shyrokyne (20km       2-4km N       Recorded       1       Projectile       SE to NW       N/K       13-Oct, 18:16         E of Mariupol)       2-4km N       Recorded       1       Illumination       In vertical flight       N/K       13-Oct, 18:21         SMM camera in Stanytsia       2-4km N       Recorded       1       Explosion       Undetermined       N/K       13-Oct, 18:23         Government- (government- controlled, 16km       1-3km SW       Recorded       1       Projectile       inside or outside the disengagement       N/K       13-Oct, 20:32         SMM camera in Svitlodarsk (government- controlled, 57km       2-4km E       Recorded       3       Projectile       In vertical flight       N/K       13-Oct, 19:24         Controlled, 57km       2-4km E       Recorded       1       Projectile       In vertical flight       N/K       13-Oct, 19:24         Controlled, 57km       2-4km E       Recorded       1       Projectile       In vertical flight       N/K       13-Oct, 19:24         Controlled, 57km       3-4km E       Recorded       1       Explosion       Undetermined       N/K       13-Oct, 23:26         3-4km E       Recorded       1       Projectile       N to S       N/K       13-Oct, 23:26 <tr< td=""><td></td><td></td><td></td><td>1</td><td><i>v</i></td><td>SE to NW</td><td></td><td></td></tr<>				1	<i>v</i>	SE to NW		
E of Mariupol)2-4km NRecorded1Illumination fareIn vertical flightN/K13-Oct, 18:212-4km NRecorded1ExplosionUndeterminedN/K13-Oct, 18:23SMM camera in Stanytsia Luhanska (government- controlled, 16km1-3km SWRecorded1ProjectileNE to SW (unable to assess whether inside or outside the disengagement area)N/K13-Oct, 20:32SMM camera in Svitlodarsk (government- controlled, 16km2-4km ERecorded3ProjectileIn vertical flight In vertical flightN/K13-Oct, 19:05Svitlodarsk (government- controlled, 57km2-4km ERecorded2ProjectileIn vertical flight In vertical flightN/K13-Oct, 19:26NE of Donetsk)2-4km ERecorded1ProjectileIn vertical flight In vertical flightN/K13-Oct, 19:27NE of Donetsk)2-4km ERecorded2ProjectileIn vertical flight N/K13-Oct, 23:263-4km ERecorded1ExplosionUndetermined N/KN/K13-Oct, 23:273-4km ERecorded1ProjectileS to NN/K13-Oct, 23:273-4km ERecorded1ExplosionUndeterminedN/K13-Oct, 23:263-4km ERecorded1ProjectileS to NN/K14-Oct, 00:053-4km ERecorded1ProjectileN to SN/K14-Oct, 00:053-4km ERecorded1Pro								
2-4km N     Recorded     1     flare     In vertical light     N/K     13-Oct, 18:21       2-4km N     Recorded     1     Explosion     Undetermined     N/K     13-Oct, 18:23       SMM camera in Luhanska (government- controlled, 16km     1-3km SW     Recorded     1     Projectile     inside or outside inside or outside the disengagement area)     N/K     13-Oct, 19:05       SMM camera in Svitlodarsk     2-4km E     Recorded     3     Projectile     In vertical light     N/K     13-Oct, 19:05       Svitlodarsk     2-4km E     Recorded     13     Projectile     In vertical light     N/K     13-Oct, 19:26       (government- controlled, 57km     2-4km E     Recorded     1     Projectile     In vertical light     N/K     13-Oct, 19:28       3-4km E     Recorded     1     Projectile     In vertical light     N/K     13-Oct, 19:28       2-4km E     Recorded     1     Projectile     In vertical light     N/K     13-Oct, 19:28       2-4km E     Recorded     1     Projectile     In vertical light     N/K     13-Oct, 23:26       3-4km E     Recorded     1     Projectile     N     N/K     13-Oct, 23:26       3-4km E     Recorded     2     Projectile     N/K     14-Oct, 00:10		2-4km N	Recorded	1	5	SE to NW	N/K	13-Oct, 18:16
SMM camera in Starytsia Luhanska (government- controlled, 16km NE of Luhansk)       1-3km SW       Recorded       1       Projectile       NE to SW (unable to assess whether inside or outside the disengagement area)       N/K       13-Oct, 20:32         SMM camera in Svitlodarsk       2-4km E       Recorded       3       Projectile       In vertical flight       N/K       13-Oct, 19:24         (government- controlled, 57km NE of Donetsk)       2-4km E       Recorded       3       Projectile       In vertical flight       N/K       13-Oct, 19:24         2-4km E       Recorded       1       Projectile       In vertical flight       N/K       13-Oct, 19:24         2-4km E       Recorded       1       Projectile       In vertical flight       N/K       13-Oct, 22:37         3-4km E       Recorded       1       Projectile       S to N       N/K       13-Oct, 20:32         3-4km E       Recorded       2       Burst       N/K       14-Oct, 00:012         3-4km E       Recorded       1       Projectile       S to N       N/K       14-Oct, 00:12         3-4km E       Recorded       1       Projectile       S to N       N/K       14-Oct, 00:12         3-4km E       Recorded       1       Projectile       N to S       N/K </td <td>E of Mariupol)</td> <td></td> <td></td> <td>1</td> <td>flare</td> <td></td> <td></td> <td></td>	E of Mariupol)			1	flare			
Stanytsia Luhanska (government- controlled, 16km NE of Luhansk)1-3km SWRecorded1Projectile(unable to assess whether inside or outside the disengagement area)N/K13-Oct, 20:32SMM camera in Svitlodarsk (government- controlled, 57km NE of Donetsk)2-4km ERecorded3ProjectileS to NN/K13-Oct, 19:05Svitlodarsk (government- controlled, 57km NE of Donetsk)2-4km ESRecorded2ProjectileIn vertical flightN/K13-Oct, 19:282-4km ESRecorded1ProjectileIn vertical flightN/K13-Oct, 19:282-4km ESRecorded1ExplosionUndeterminedN/K13-Oct, 22:373-4km ERecorded1ProjectileS to NN/K13-Oct, 23:263-4km ERecorded2BurstN/K14-Oct, 00:023-4km ERecorded1ProjectileS to NN/K14-Oct, 00:123-4km ERecorded1ProjectileN to SN/K14-Oct, 00:123-4km ERecorded1ProjectileN to SN/K14-Oct, 00:123-4km ERecorded2ProjectileN to SN/K14-Oct, 00:163-4km ERecorded1ProjectileN to SN/K14-Oct, 00:163-4km ERecorded2ProjectileN to SN/K14-Oct, 00:163-4km ERecorded2ProjectileN to SN/K14-Oct, 00:16 <tr<< td=""><td></td><td>2-4km N</td><td>Recorded</td><td>1</td><td>Explosion</td><td></td><td>N/K</td><td>13-Oct, 18:23</td></tr<<>		2-4km N	Recorded	1	Explosion		N/K	13-Oct, 18:23
Svitlodarsk (government- controlled, 57km)         2-4km ESE Recorded         Recorded         13         Projectile         In vertical flight         N/K         13-Oct, 19:24           2.4km ESE         Recorded         2         Projectile         In vertical flight         N/K         13-Oct, 19:24           2.4km ESE         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 19:24           3.4km E         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:37           3.4km E         Recorded         12         Projectile         S to N         N/K         13-Oct, 23:47           3.4km E         Recorded         2         Explosion         Undetermined         N/K         14-Oct, 00:08           3.4km E         Recorded         1         Projectile         S to N         N/K         14-Oct, 00:12           3.4km E         Recorded         1         Projectile         N to S         N/K         14-Oct, 00:16           3.4km E         Recorded         1         Projectile         N to S         N/K         14-Oct, 00:16           3.4km E         Recorded         1         Projectile         N to S         N/K         14-Oct, 00:19	Luhanska (government- controlled, 16km	1-3km SW	Recorded	1	Projectile	assess whether inside or outside the disengagement	N/K	13-Oct, 20:32
Svitlodarsk (government- controlled, 57km)         2-4km ESE Recorded         Recorded         13         Projectile         In vertical flight         N/K         13-Oct, 19:24           2.4km ESE         Recorded         2         Projectile         In vertical flight         N/K         13-Oct, 19:24           2.4km ESE         Recorded         3         Projectile         In vertical flight         N/K         13-Oct, 19:24           3.4km E         Recorded         1         Explosion         Undetermined         N/K         13-Oct, 22:37           3.4km E         Recorded         12         Projectile         S to N         N/K         13-Oct, 23:47           3.4km E         Recorded         2         Explosion         Undetermined         N/K         14-Oct, 00:08           3.4km E         Recorded         1         Projectile         S to N         N/K         14-Oct, 00:12           3.4km E         Recorded         1         Projectile         N to S         N/K         14-Oct, 00:16           3.4km E         Recorded         1         Projectile         N to S         N/K         14-Oct, 00:16           3.4km E         Recorded         1         Projectile         N to S         N/K         14-Oct, 00:19	SMM camera in	2-4km E	Recorded	3	Projectile	/	N/K	13-Oct, 19:05
(government- controlled, 57km NE of Donetsk)2-4km ESERecorded2ProjectileIn vertical flightN/K13-Oct, 19:283-4km SERecorded1ExplosionUndeterminedN/K13-Oct, 22:373-4km ERecorded12ProjectileS to NN/K13-Oct, 23:263-4km ERecorded12ProjectileS to NN/K13-Oct, 23:263-4km ERecorded2BurstN/K14-Oct, 00:053-4km ERecorded2BurstN/K14-Oct, 00:083-4km ERecorded1ProjectileS to NN/K14-Oct, 00:0123-4km ERecorded1ProjectileN to SN/K14-Oct, 00:123-4km ERecorded1ProjectileN to SN/K14-Oct, 00:143-4km ERecorded1ProjectileN to SN/K14-Oct, 00:163-4km ERecorded1ProjectileN to SN/K14-Oct, 00:163-4km ERecorded1ProjectileN to SN/K14-Oct, 00:163-4km ERecorded1ProjectileN to SN/K14-Oct, 00:163-4km ERecorded2ProjectileN to SN/K14-Oct, 00:163-4km ERecorded3ProjectileN to SN/K14-Oct, 00:203-4km ERecorded7ProjectileN to SN/K14-Oct, 00:203-4km ERecorded7ProjectileS to								
$ \begin{array}{c} \mbox{controlled}, 57km \\ \mbox{NE of Donetsk} \end{array} \begin{array}{ c c c c c } \hline 2 & Recorded & 3 & Projectile & In vertical flight & N/K & 13-Oct, 19:41 \\ \hline 3-4km SE & Recorded & 1 & Explosion & Undetermined & N/K & 13-Oct, 22:37 \\ \hline 3-4km E & Recorded & 12 & Projectile & S to N & N/K & 13-Oct, 23:26 \\ \hline 3-4km E & Recorded & 2 & Burst & N/K & 13-Oct, 23:26 \\ \hline 3-4km E & Recorded & 2 & Burst & N/K & 14-Oct, 00:05 \\ \hline 3-4km E & Recorded & 2 & Burst & N/K & 14-Oct, 00:08 \\ \hline 3-4km E & Recorded & 1 & Projectile & S to N & N/K & 14-Oct, 00:012 \\ \hline 3-4km E & Recorded & 1 & Projectile & S to N & N/K & 14-Oct, 00:12 \\ \hline 3-4km E & Recorded & 1 & Projectile & S to N & N/K & 14-Oct, 00:15 \\ \hline 3-4km E & Recorded & 1 & Projectile & S to N & N/K & 14-Oct, 00:15 \\ \hline 3-4km E & Recorded & 5 & Projectile & S to N & N/K & 14-Oct, 00:16 \\ \hline 3-4km E & Recorded & 1 & Projectile & N to S & N/K & 14-Oct, 00:16 \\ \hline 3-4km E & Recorded & 1 & Projectile & N to S & N/K & 14-Oct, 00:16 \\ \hline 3-4km E & Recorded & 2 & Projectile & N to S & N/K & 14-Oct, 00:16 \\ \hline 3-4km E & Recorded & 2 & Projectile & N to S & N/K & 14-Oct, 00:16 \\ \hline 3-4km E & Recorded & 2 & Projectile & S to N & N/K & 14-Oct, 00:10 \\ \hline 3-4km E & Recorded & 2 & Projectile & N to S & N/K & 14-Oct, 00:21 \\ \hline 3-4km E & Recorded & 2 & Projectile & S to N & N/K & 14-Oct, 00:21 \\ \hline 3-4km SE & Recorded & 2 & Projectile & S to N & N/K & 14-Oct, 00:22 \\ \hline 3-4km SE & Recorded & 1 & Projectile & S to N & N/K & 14-Oct, 00:22 \\ \hline 3-4km SE & Recorded & 1 & Projectile & S to N & N/K & 14-Oct, 00:22 \\ \hline 3-4km SE & Recorded & 1 & Projectile & S to N & N/K & 14-Oct, 01:0 \\ \hline 3-4km SE & Recorded & 3 & Projectile & S to N & N/K & 14-Oct, 01:4 \\ \hline 3-4km SE & Recorded & 3 & Projectile & S to N & N/K & 14-Oct, 01:4 \\ \hline 3-4km SE & Recorded & 3 & Projectile & S to N & N/K & 14-Oct, 01:4 \\ \hline 3-4km SE & Recorded & 3 & Projectile & S to N & N/K & 14-Oct, 01:4 \\ \hline 3-4km SE & Recorded & 3 & Projectile & S to N & N/K & 14-Oct, 02:14 \\ \hline 3-4km SE & Recorded & 3 & Projectile & S to N & N/K & 14-Oct, 01:4 \\ \hline 3-4km SE$	(government-							
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	controlled, 57km	2-4km E	Recorded	3	Projectile		N/K	13-Oct, 19:41
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	NE of Donetsk)	3-4km SE	Recorded	1	Explosion	Undetermined	N/K	13-Oct, 22:37
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		3-4km E	Recorded	12	Projectile	S to N		
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			Recorded	3	Projectile	S to N		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								,
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					V			
3-4km ERecorded5ProjectileS to NN/K14-Oct, 00:163-4km ERecorded1ProjectileN to SN/K14-Oct, 00:163-4km ERecorded2ProjectileN to SN/K14-Oct, 00:193-4km ERecorded7ProjectileS to NN/K14-Oct, 00:193-4km ERecorded3ProjectileS to NN/K14-Oct, 00:193-4km ERecorded3ProjectileS to NN/K14-Oct, 00:203-4km ERecorded2ProjectileN to SN/K14-Oct, 00:213-4km SSERecorded7ProjectileS to NN/K14-Oct, 00:253-4km ERecorded4ProjectileS to NN/K14-Oct, 00:263-4km SERecorded2ProjectileS to NN/K14-Oct, 00:263-4km SERecorded1ProjectileS to NN/K14-Oct, 01:413-4km SERecorded3ProjectileN to SN/K14-Oct, 01:413-4km SERecorded3ProjectileN to SN/K14-Oct, 02:083-4km ERecorded3ProjectileN to SN/K14-Oct, 02:083-4km ERecorded3ProjectileS to NN/K14-Oct, 02:083-4km ERecorded3ProjectileS to NN/K14-Oct, 02:083-4km ERecorded1ProjectileS to NN/K14-Oct, 03:14 </td <td></td> <td></td> <td></td> <td></td> <td><i>v</i></td> <td></td> <td></td> <td></td>					<i>v</i>			
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					, v			
3-4km ERecorded2ProjectileN to SN/K14-Oct, 00:213-4km SSERecorded7ProjectileS to NN/K14-Oct, 00:253-4km ERecorded4ProjectileS to NN/K14-Oct, 00:263-4km SERecorded2ProjectileS to NN/K14-Oct, 00:263-4km SERecorded2ProjectileN to SN/K14-Oct, 01:063-4km SERecorded1ProjectileN to SN/K14-Oct, 01:413-4km SERecorded3ProjectileN to SN/K14-Oct, 01:433-4km ERecorded3ProjectileS to NN/K14-Oct, 02:083-4km ERecorded2ProjectileS to NN/K14-Oct, 02:493-4km ERecorded1ProjectileS to NN/K14-Oct, 02:493-4km ERecorded1ProjectileS to NN/K14-Oct, 03:14Debaltseve (non- government-5-6km NHeardShotuncountable, overlappingSmall14-Oct, 09:15- arms								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								
3-4km ERecorded4ProjectileS to NN/K14-Oct, 00:263-4km SERecorded2ProjectileS to NN/K14-Oct, 01:063-4km SERecorded1ProjectileN to SN/K14-Oct, 01:413-4km SERecorded3ProjectileN to SN/K14-Oct, 01:433-4km ERecorded3ProjectileS to NN/K14-Oct, 02:083-4km ERecorded2ProjectileS to NN/K14-Oct, 02:083-4km ERecorded1ProjectileS to NN/K14-Oct, 02:493-4km ERecorded1ProjectileS to NN/K14-Oct, 03:14Debaltseve (non- government-5-6km NHeardShotuncountable, overlappingSmall14-Oct, 09:15- overlapping								
3-4km SERecorded2ProjectileS to NN/K14-Oct, 01:063-4km SERecorded1ProjectileN to SN/K14-Oct, 01:413-4km SERecorded3ProjectileN to SN/K14-Oct, 01:433-4km ERecorded3ProjectileS to NN/K14-Oct, 01:433-4km ERecorded2ProjectileS to NN/K14-Oct, 02:083-4km ERecorded2ProjectileS to NN/K14-Oct, 02:083-4km ERecorded1ProjectileS to NN/K14-Oct, 03:14Debaltseve (non- government-5-6km NHeardShotuncountable, overlappingSmall14-Oct, 09:15- overlapping								
3-4km SERecorded1ProjectileN to SN/K14-Oct, 01:413-4km SERecorded3ProjectileN to SN/K14-Oct, 01:433-4km ERecorded3ProjectileS to NN/K14-Oct, 02:083-4km ERecorded2ProjectileS to NN/K14-Oct, 02:083-4km ERecorded1ProjectileS to NN/K14-Oct, 02:493-4km ERecorded1ProjectileS to NN/K14-Oct, 03:14Debaltseve (non- government-5-6km NHeardShotuncountable, overlappingSmall14-Oct, 09:15- arms								
3-4km SE         Recorded         3         Projectile         N to S         N/K         14-Oct, 01:43           3-4km E         Recorded         3         Projectile         S to N         N/K         14-Oct, 02:08           3-4km E         Recorded         2         Projectile         S to N         N/K         14-Oct, 02:09           3-4km E         Recorded         1         Projectile         S to N         N/K         14-Oct, 03:14           Debaltseve (non- government-         5-6km N         Heard         Shot         uncountable, overlapping         Small         14-Oct, 09:15- arms         09:40								
3-4km E         Recorded         3         Projectile         S to N         N/K         14-Oct, 02:08           3-4km E         Recorded         2         Projectile         S to N         N/K         14-Oct, 02:49           3-4km E         Recorded         1         Projectile         S to N         N/K         14-Oct, 02:49           3-4km E         Recorded         1         Projectile         S to N         N/K         14-Oct, 03:14           Debaltseve (non-government-         5-6km N         Heard         Shot         uncountable, overlapping         Small         14-Oct, 09:15-09:40								
3-4km E         Recorded         2         Projectile         S to N         N/K         14-Oct, 02:49           3-4km E         Recorded         1         Projectile         S to N         N/K         14-Oct, 03:14           Debaltseve (non- government-         5-6km N         Heard         Shot         uncountable, overlapping         Small         14-Oct, 09:15- arms								
3-4km E         Recorded         1         Projectile         S to N         N/K         14-Oct, 03:14           Debaltseve (non- government-         5-6km N         Heard         Shot         uncountable, overlapping         Small         14-Oct, 09:15- arms         09:40					<i>v</i>			
government- S-okm N Heard Snot overlapping arms 09:40				1	V			
							Small	14-Oct, 09:15-
controlled, 58km 5-6km N Heard Explosion Undetermined N/K 14-Oct, 09:15-	0	5-6km N	Heard		Explosion			14-Oct, 09:15-

NE of Donetsk)					(uncountable, overlapping)		09:40
1.8km N of Petrivske (non- government- controlled, 41km	2-3km ENE	Heard	2	Shot	Assessed as outside the disengagement area	Small arms	14-Oct, 10:55
S of Donetsk)	2-3km ENE	Heard	1	Shot	Assessed as outside the disengagement area	Small arms	14-Oct, 11:57
1.1km NW of railway station in Yasynuvata (non- government- controlled, 16km NE of Donetsk)	1-2km S	Heard	7	Shot		Small arms	14-Oct, 10:48- 10:55
Talakivka (government-	1-2km NE	Heard	1	Explosion	Outgoing	N/K	14-Oct, 09:13- 09:16
controlled, 17km NE of Mariupol)	N/K E	Heard	4	Explosion	Undetermined		14-Oct, 09:13- 09:16
	N/K E	Heard	5	Burst		Small arms	14-Oct, 09:40- 09:53
	N/K E	Heard	7	Shot		Small arms	14-Oct, 09:40- 09:53
-	N/K E	Heard	9	Explosion	Undetermined	N/K	14-Oct, 09:40- 09:53
1km NNW of Pyshchevyk	N/K SSE	Heard	10	Explosion	Undetermined	N/K	14-Oct, 09:14- 10:00
(government- controlled, 25km	N/K SSE	Heard	35	Shot		Small arms	14-Oct, 09:14- 10:00
NE of Mariupol)	N/K NNE	Heard	22	Shot		Small arms	14-Oct, 09:14- 10:00
	N/K NNE	Heard	17	Shot		Small arms	14-Oct, 09:14- 10:00
	N/K NNE	Heard	3	Explosion	Undetermined	N/K	14-Oct, 09:14- 10:00
-	N/K NNE	Heard	12	Burst		Small arms	14-Oct, 10:02- 10:12
	N/K NE	Heard	19	Burst		Small arms	14-Oct, 10:02- 10:12
-	N/K NE	Heard	3	Explosion	Undetermined	N/K	14-Oct, 10:02- 10:12
	N/K SSE	Heard	3	Explosion	Undetermined	N/K	14-Oct, 10:02- 10:12
	N/K SSE	Heard	2	Explosion	Undetermined	N/K	14-Oct, 10:19
	N/K NNE	Heard	10	Shot		Small arms	14-Oct, 10:44- 10:50
	N/K NE	Heard	11	Shot		Small arms	14-Oct, 10:56- 11:00
	N/K NE	Heard	1	Burst		Small arms	14-Oct, 10:56- 11:00
	N/K NE	Heard	1	Explosion	Undetermined	N/K	14-Oct, 10:56- 11:00
	N/K SSE	Heard	2	Explosion	Undetermined	N/K	14-Oct, 10:56- 11:00
-	N/K ESE	Heard	1	Explosion	Undetermined	N/K	14-Oct, 10:56- 11:00
2km SW of Pyshchevyk	N/K NNE	Heard	2	Shot		Small arms	14-Oct, 10:45
(government-	N/K NNE	Heard	5	Explosion	Undetermined	N/K	14-Oct, 11:00
controlled, 25km	N/K E	Heard	6	Explosion	Undetermined	N/K	14-Oct, 11:00
NE of Mariupol)	N/K E	Heard	2	Burst		Small arms	14-Oct, 11:00
[	N/K SSE	Heard	2	Explosion	Undetermined	N/K	14-Oct, 11:37
	N/K NNE	Heard	4	Explosion	Undetermined	N/K	14-Oct, 11:45

	N/K NNE	Heard	16	Explosion	Undetermined	N/K	14-Oct, 12:00- 12:25
	N/K NNE	Heard	7	Burst		Small arms	14-Oct, 12:00- 12:25
	N/K NNE	Heard	20	Shot		Small arms	14-Oct, 12:00- 12:25
Lomakyne (government-	1-2km NE	Heard	2	Explosion	Outgoing	N/K	14-Oct, 10:12- 10:19
controlled, 15km NE of Mariupol)	N/K NE	Heard	2	Explosion	Undetermined	N/K	14-Oct, 10:12- 10:19
	N/K NE	Heard	4	Burst		Small arms	14-Oct, 10:22- 10:24
	N/K NE	Heard	13	Shot		Small arms	14-Oct, 10:22- 10:24
2km SE of Lebedynske	N/K NE	Heard	19	Shot		Small arms	14-Oct, 11:45- 12:00
(government- controlled, 16km	N/K NE	Heard	1	Explosion	Undetermined	N/K	14-Oct, 11:45- 12:00
NE of Mariupol)	N/K NNE	Heard	1	Burst		Small arms	14-Oct, 11:45- 12:00
	N/K NE	Heard	5	Shot		Small arms	14-Oct, 12:04- 12:28
	N/K NE	Heard	9	Burst		Small arms	14-Oct, 12:04- 12:28
	N/K ENE	Heard	7	Explosion	Undetermined	N/K	14-Oct, 12:04- 12:28
	N/K ENE	Heard	3	Burst		HMG	14-Oct, 12:04- 12:28
	N/K ENE	Heard	3	Burst		Small arms	14-Oct, 12:04- 12:28
	N/K ENE	Heard	31	Shot		Small arms	14-Oct, 12:04- 12:28
	N/K NNE	Heard	27	Shot		Small arms	14-Oct, 12:44- 12:47
4km W of Chermalyk	0.5km N	Heard and saw	9	Shot	Assessed as live-fire training	Small arms	14-Oct, 11:35- 11:39
(government- controlled, 31km NE of Mariupol)	0.5km N	Heard and saw	2	Burst	Assessed as live-fire training	Small arms	14-Oct, 11:35- 11:39
Chermalyk (government-	N/K SE	Heard	67	Shot		Small arms	14-Oct, 12:07- 12:29
controlled, 31km NE of Mariupol)	N/K SE	Heard	8	Burst		Small arms	14-Oct, 12:07- 12:29
Horlivka (non-	3-5km SW	Heard	7	Explosion	Undetermined	N/K	13-Oct, 19:01
government-	3-5km SW	Heard	4	Explosion	Undetermined	N/K	13-Oct, 19:08
controlled, 39km NE of Donetsk)	3-5km SW	Heard	6	Explosion	Undetermined	N/K	13-Oct, 19:15
NE OI DOIICISK)	3-5km SW	Heard	2	Explosion	Undetermined	N/K	13-Oct, 19:23
Svitlodarsk (government-	3-4km NW 5-7km SE	Heard Heard	6 25	Explosion Explosion	Undetermined Undetermined	N/K N/K	14-Oct, 15:20 13-Oct, 18:50- 19:00
controlled, 57km	4-6km SE	Heard	2	Explosion	Undetermined	N/K	13-Oct, 19:15
NE of Donetsk)	5-7km ESE	Heard	18	Burst		HMG	13-Oct, 19:20- 19:22
	5-7km ESE	Heard	7	Explosion	Undetermined	N/K	13-Oct, 20:45- 20:46
	5-7km ESE	Heard	26	Burst		HMG	13-Oct, 21:50- 21:55
	4-6km SE	Heard	2	Explosion	Undetermined	N/K	13-Oct, 22:11
	4-6km WSW	Heard	3	Explosion	Undetermined	N/K	13-Oct, 23:23
	5-7km SE	Heard	8	Burst		HMG	13-Oct, 23:25- 23:26
	4-5km W	Heard	10	Explosion	Undetermined	N/K	14-Oct, 09:25- 09:28
	4-5km NW	Heard	5	Explosion	Undetermined	N/K	14-Oct, 11:20- 11:25

	4-5km NW	Heard	8	Explosion	Undetermined	N/K	14-Oct, 11:30- 11:55
	3-4km W	Heard	3	Explosion	Undetermined	N/K	14-Oct, 13:12- 13:15
Kadiivka (formerly	10-15km NNW	Heard	4	Explosion	Undetermined	N/K	13-Oct, 18:29- 18:35
Stakhanov, non- government- controlled, 50km	10-15km NNE	Heard	38	Explosion	Outgoing	Artillery (type N/K)	14-Oct, 09:51- 10:25
W of Luhansk)	10-15km NNW	Heard	14	Explosion	Outgoing	Artillery (type N/K)	14-Oct, 13:52- 14:25
E edge of Stanytsia Luhanska (government- controlled, 16km NE of Luhansk)	2-3km W	Heard	8	Shot		HMG	13-Oct, 18:35- 18:38
N edge of Popasna (government- controlled, 69km W of Luhansk)	10-15km NE	Heard	28	Explosion	Undetermined	N/K	14-Oct, 09:30- 09:48
E edge of Popasna (government-	10-15km NE	Heard	24	Explosion	Undetermined	N/K	14-Oct, 09:58- 10:32
controlled, 69km W of Luhansk)	5-8km ENE	Heard	3	Explosion	Undetermined	N/K	14-Oct, 09:58- 10:32
SE edge of Popasna	8-10km NE	Heard	7	Explosion	Undetermined	N/K	14-Oct, 10:34- 11:00
(government- controlled, 69km	5-8km E	Heard	6	Explosion	Undetermined	N/K	14-Oct, 10:34- 11:00
W of Luhansk)	8-10km NNE	Heard	4	Explosion	Undetermined	N/K	14-Oct, 10:34- 11:00
	5-8km SW	Heard	3	Explosion	Undetermined	N/K	14-Oct, 10:34- 11:00
	5-6km SSE	Heard	2	Explosion	Undetermined	N/K	14-Oct, 10:43- 11:00
Irmino (non- government-	8-13km NE	Heard	12	Explosion	Undetermined	N/K	14-Oct, 09:47- 09:55
controlled, 54km W of Luhansk)	8-13km NE	Heard	8	Explosion	Undetermined	N/K	14-Oct, 10:00- 10:03
NE edge of Katerynivka (government- controlled, 64km W of Luhansk)	3-5km E	Heard	18	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	14-Oct, 10:10- 10:27
W edge of Pervomaisk (non- government- controlled, 58km W of Luhansk)	6-7km NE	Heard	5	Explosion	Undetermined	N/K	14-Oct, 10:13- 10:16
1.5km SW of Molodizhne (non- government- controlled, 63km W of Luhansk)	7-9km NE	Heard	4	Explosion	Undetermined (assessed as outside the disengagement area)	N/K	14-Oct, 10:25- 10:34
	4-6km NE	Heard	12	Burst	Assessed as inside the disengagement area	HMG	14-Oct, 10:25- 10:34



## Map of Donetsk and Luhansk regions<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> The SMM is deployed to ten locations throughout Ukraine – Kherson, Odessa, Lviv, Ivano-Frankivsk, Kharkiv, Donetsk, Dnipro, Chernivtsi, Luhansk and Kyiv – as per Permanent Council Decision 1117 of 21 March 2014. This map of eastern Ukraine is meant for illustrative purposes and indicates locations mentioned in the report, as well as those where the SMM has offices (monitoring teams, patrol hubs, and forward patrol bases) in Donetsk and Luhansk regions. (In red: forward patrol bases from which SMM staff has temporarily relocated based on recommendations of security experts from participating States as well as SMM security considerations).