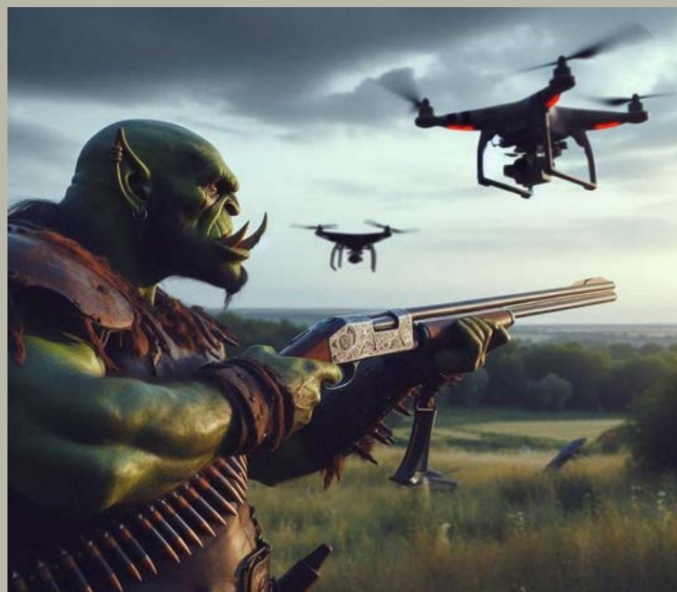




# INFORMATION BULLETIN No. 1

"EXPERIENCE IN USING 12 CALIBER GUNS BY  
UNITS OF THE RUSSIAN FEDERATION FOR  
THE DESTRUCTION OF UAVS"

(SEPTEMBER 2024)



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**(SEPTEMBER 2024)**

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## **PREFACE**

In this newsletter, we will look in detail at the experience of using 12-gauge rifles by servicemen of the Russian Federation to shoot down UAVs. This information should be taken into account by us, as it allows us to better understand how the enemy adapts to modern threats and develops new tactical approaches. By analyzing such actions, we can better prepare to counter such methods, improve our tactics, and stay one step ahead in asymmetric warfare.

## INTRODUCTION

In the modern conditions of the war with the Russian Federation, drones have become an indispensable tool for conducting reconnaissance, adjusting artillery fire, delivering precise strikes and performing other critically important tasks. Their maneuverability and relatively low cost make them a powerful asset on the battlefield. However, the enemy does not stand still and constantly improves methods of combating UAVs. One of the unexpected, but quite effective solutions was the use of 12-gauge guns to shoot down low-flying and low-speed drones.

The popularity of guns is explained by several factors: wide availability, low cost, ease of use. With special ammunition such as shot, the 12-gauge gun is capable of engaging drones up to 75 meters away, making it a relatively effective weapon for destroying low-flying UAVs. In addition, this tactic allows the enemy to save resources, avoid the use of expensive anti-drone systems and operate in conditions where electronic means of combat are ineffective.

This bulletin examines in detail the testing and use of 12-gauge rifles by the enemy against drones. We analyze the specifics of such tactics, their advantages, limitations and potential risks.

The enemy uses the following tactics in the fight against UAVs, using 12 gauge shotguns:

One serviceman armed with a 12-gauge rifle is assigned to each buggy crew or mobile assault team. This allows mobile units to quickly respond to the appearance of drones in their sector, quickly destroying them at close range. Numerous videos show that the enemy, placing himself on top of the "armor", assigns one serviceman armed with a 12-gauge rifle to be in charge of the inspection sector opposite to the direction of movement of the equipment, thereby covering the vehicle from a blow from the rear.

The enemy uses portable drone detectors that detect the appearance of UAVs within the range of the detector. Thanks to these devices, enemy crews can quickly detect a threat and prepare their guns.



*For reference: currently, the enemy has started using **BULAT** drone detectors of the 4th generation. The manufacturer claims that the detector can detect UAVs in the range of 300-6200 MHz. Detection range up to 1000 meters.*

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*the generation of the detector has passed 9 months, this indicates that the enemy is trying to develop an effective device for the protection of its own troops.*



*Photo 2. Complete set of the **BULAT** 4th generation drone detector*

**3. Coordination of 12-gauge rifles with ERW rifles.** It was noted that the enemy uses 12-gauge guns in cooperation with electronic warfare equipment. EW guns interfere with the control of drones, block their GPS signals and video communication, forcing UAVs to lower altitude or lose control. At this point, 12 gauge shotguns become effective for physically engaging drones at low altitude.

**4. Creation of fire ambushes.** The enemy organizes ambushes on the probable flight routes of SOU drones. Enemy military personnel take up positions with 12-gauge rifles at points where drones can fly at low altitude, such as near buildings, wooded areas, or in difficult terrain. This allows you to suddenly attack the drone at its most vulnerable moment.

**5. Combined fire groups.** The enemy creates combined groups in which different types of weapons are used simultaneously. Fighters with 12-gauge rifles operate in conjunction with machine gunners or soldiers armed with assault rifles, thereby increasing the probability of downing drones.



*Photo 3,4. The enemy demonstrates equipment for combating UAVs*

**For reference:** in these photos, the enemy demonstrates equipment for detecting drones using the BULAT-3 drone detector, an electronic warfare device in a backpack for suppressing UAVs, a battery for power supply, and a TOZ-34 gun for shooting at UAVs.

Using these tactics allows the enemy to quickly adapt to combat conditions and counter the UAV threat, using 12-gauge guns as an effective and cost-effective means of combating drones at low altitudes.



## **SECTION 2. TYPES OF 12 GAUGE GUNS USED BY THE UNITS OF THE RUSSIAN FEDERATION FOR ANTI-ASV.**

From the second half of 2023, the Ministry of Defense of the Russian Federation began the purchase of 12-gauge rifles to combat the "FPV drones" of the SOU. Rifles are supplied to units of the ground forces of the Russian Federation, namely assault units.

The purchase of 2 types of rifles was officially noted.

### **Rifle "MR-155"**

The length of the barrel is 71 centimeters. Type – semi-automatic. The number of bullets is 5. The use of a magazine extension has been observed, which increases the number of bullets to 8.



### **Rifle "VEPR-12"**

The length of the barrel is 51 centimeters. Type – semi-automatic. The number of cartridges (stores for 5, 8, and 10 cartridges).



### CHAPTER 3. NON-STANDARD MEANS OF FIRING 12 CALIBER BULLETS.

Taking into account the great need for rifles, the Russian military is simultaneously developing "substitutes" for 12-gauge rifles in factory and artisanal conditions in order to achieve saturation of the means of defense against drones of the Defense Forces of Ukraine on the battlefield.

#### **Means of firing 12-caliber bullets against drones "ROSYANKA"**

It is a plastic insert in the GP-25 underbarrel grenade launcher.



*Photo 5. General view of the "ROSYANKA" device*



*Photo 6. The moment of charging the "ROSYANKA" device*



*Photo 7. The moment of equipping the device in the "GP-25" underbarrel grenade launcher*



*Photo 8. Readiness for use of the "**ROSYANKA**" device*



*Photo 9. The moment the enemy fired from the "ROSYANKA" device*



*Photo 10. The moment of hitting from the device on the UAV.*

*(distance 25 meters)*



*Photo 11. The moment of sleeve extraction.*



This type of "artisan" weaponry has a number of disadvantages, namely:

- 1 charge
- Long recharging process
- Short barrel (which affects the range of the shot)
- Lack of aiming devices (affects shot accuracy)

### **Home-made means of firing 12 caliber bullets**

Has 1 round of 12 gauge. Disadvantages and characteristics are identical to those described above.



*Photo 12. Shooting from a home-made 12 gauge device*

### **A sample of a remote-controlled 12-gauge shotgun**

Considering the large amount of destroyed equipment of the units of the Russian Federation "FPV drones" SOU, the Russian military began to experiment with the protection of equipment. The photo shows a prototype of a 12-gauge remote-controlled module that is installed on a vehicle. The sample uses a barrel from a **"VEPR-12" rifle**.

It has been noted that the moving barrel of the 12-gauge remote-controlled shotgun is slow and cannot keep up with the speed of the "FPV drone". The probability of destroying the drone is minimal.

The number of cartridges in a drum-type magazine is 12-20 cartridges. Effective firing range (destruction) up to 25 meters. During the shooting of this gun, problems with stabilization are noted, which, accordingly, affects the accuracy of shooting. The estimated risk for the destruction of SOU drones is minimal.



*Photo 12, 13. Experimental sample of a remote-controlled 12-gauge rifle*

#### CHAPTER 4. TYPES OF AMMUNITION FOR 12 CALIBER RIFLES USED BY UNITS OF THE RF FOR AGAINST AIRCRAFT

##### 12-gauge cartridge "**PEREKHVAT**" (12x70)

- The length of the thread is 50 cm, the total diameter of the thread is 1 meter. (area of damage 1 meter x 1 meter).
- The material of the thread is Kevlar.
- "**PEREKHVAT**" cartridges are manufactured in Izhevsk at the weapons factory.
- Each cartridge is equipped by hand.
- The thread breaking force is 35 kilograms.
- The range declared by the manufacturer is up to 100 meters. (real range according to the tests of the Russian military is up to 75 meters).
- Speed 550 m/s.



*Photo 14. General view of the "**PEREKHVAT**" embankment*

## Противодронные патроны «Перехват»

t2.RU



Photo 15. Composition of the "PEREKHVAT" charge (in enemy language)

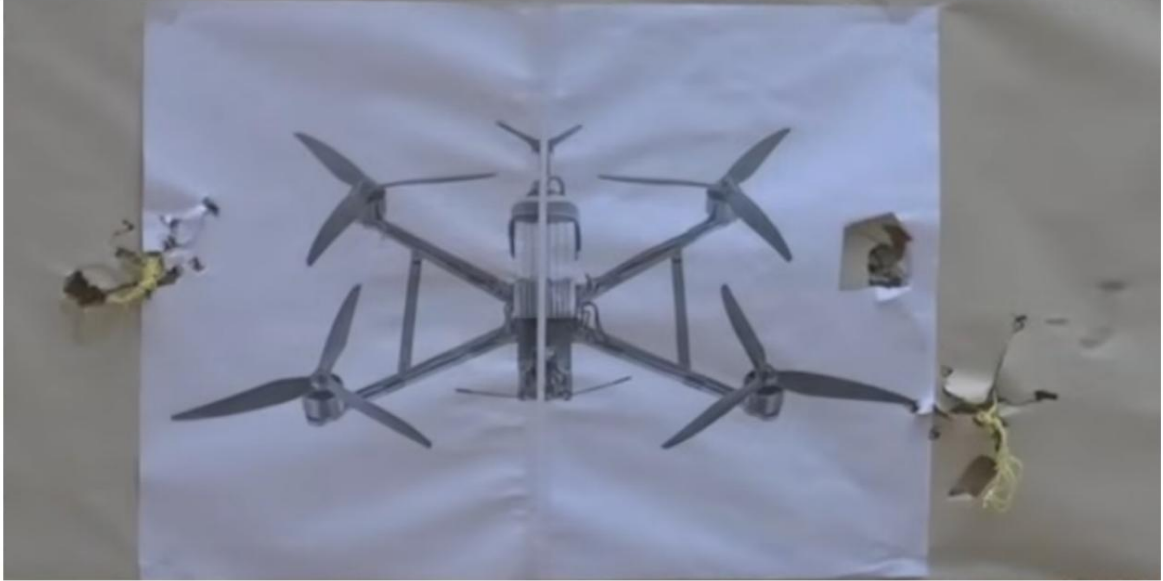


Photo 16. The process of equipping the "PEREKHVAT" charge (Izhevsk Plant)



The results of enemy testing of the **PEREKHVAT** charge.

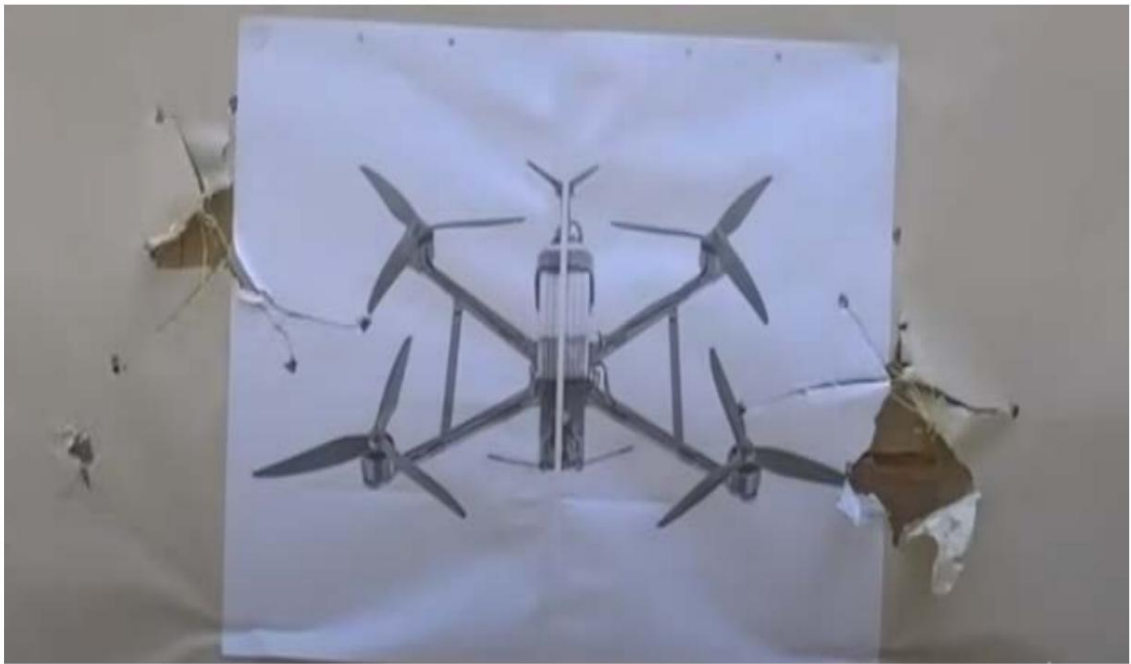
The type of gun is MP-155. The length of the barrel is 71 centimeters.



*Photo 17. The testers fired 2 shots from a distance of 5 meters in order to show the diameter of the opening of the charge*



*Photo 18. Showing the opening of striking elements at a distance of 5 meters (makes 12 centimeters)*



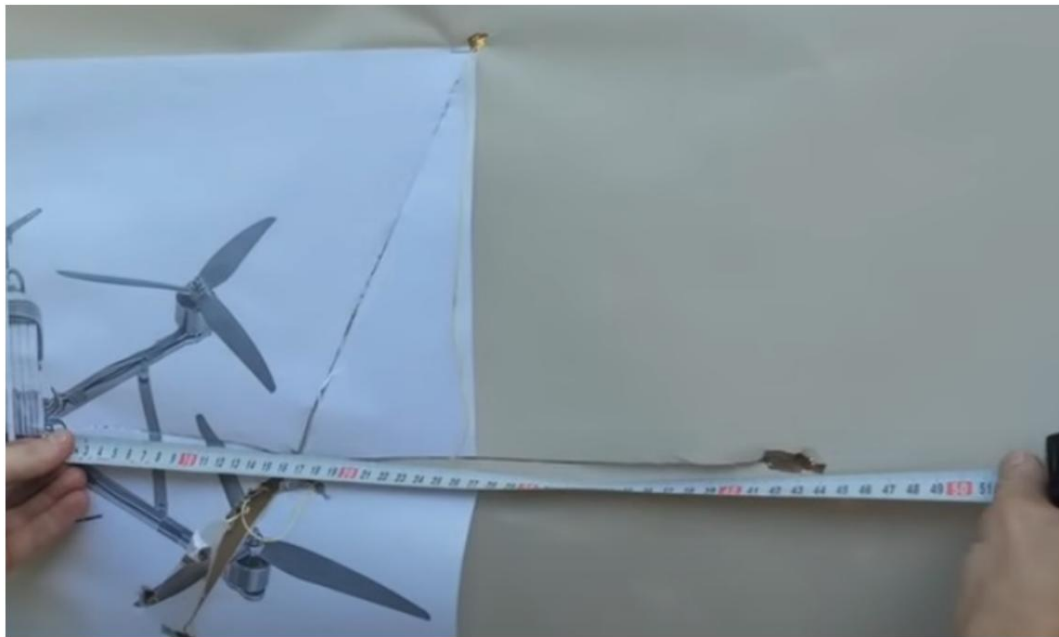
*Photo 19. The testers fired 2 shots from a distance of 10 meters in order to show the diameter of the opening of the charge*



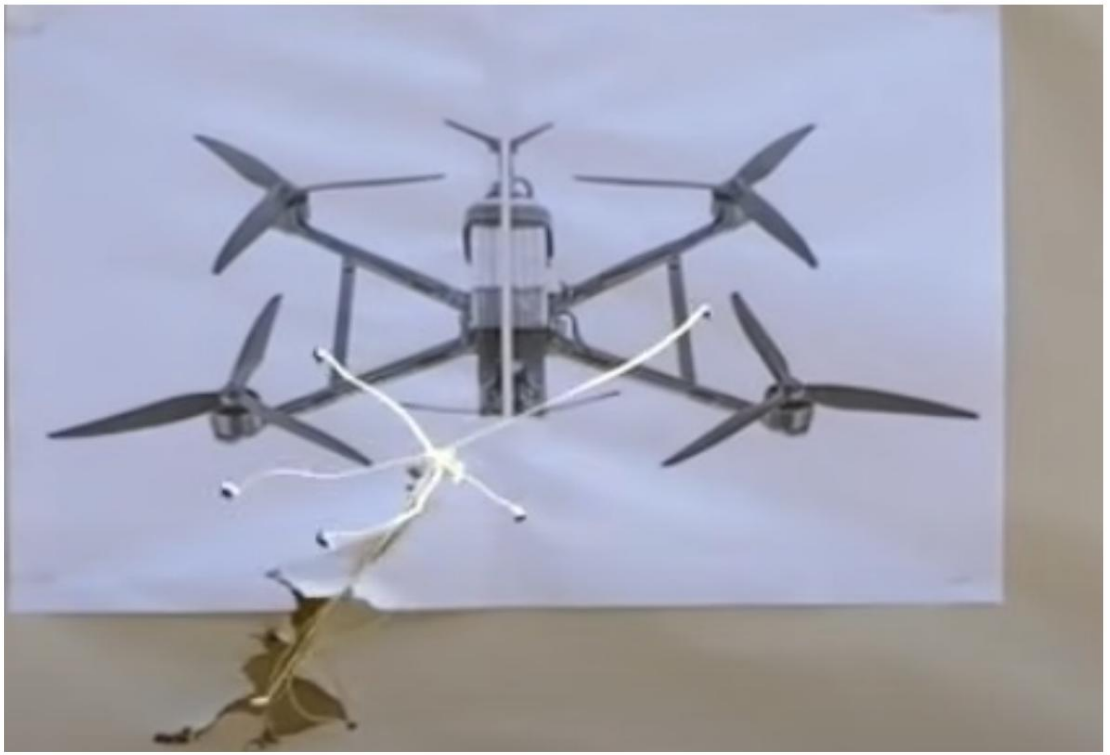
*Photo 20. Showing the opening of striking elements at a distance of 10 meters (makes 22 centimeters)*



*Photo 21. The testers fired 2 shots from a distance of 20 meters in order to show the diameter of the opening of the charge*



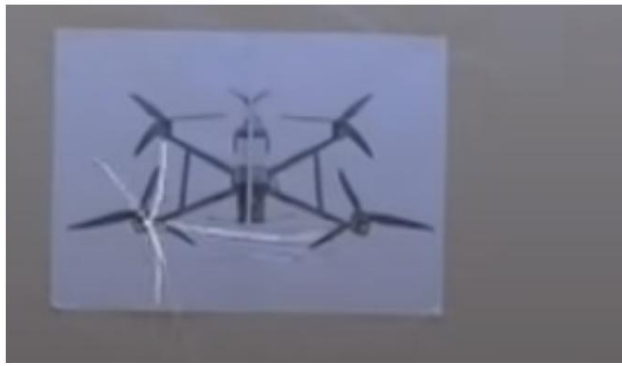
*Photo 22. Showing the opening of striking elements at a distance of 20 meters (makes 43 centimeters)*



*Photo 23. Visualization of the moment of the opening of an impressive charge at a distance of 30 meters*



*Photo 24. Showing the opening of striking elements at a distance of 30 meters (makes 33 centimeters)*



*Photo 25. The moment of hitting a target at a distance of 50 meters*

So, according to the results of testing, the **"PEREKHVAT"** charge shows the following results:

From a distance of 20 meters, the charge acquires the maximum diameter of the opening, after that the opening of the charge varies with the distance, due to the weight of the striking elements (increasing or decreasing). The maximum target damage range was 75 meters. It should be noted that the target is static, so the shooting conditions are almost ideal. But this testing gives a clear understanding of the effectiveness of this charge.



*Photo 26. The result of defeating the drone with the **"PEREKHVAT"** bullet (Kevlar thread tangled the drone blades, 1 blade was cut off by the thread)*

## 12-gauge "KS" charge.



*Photo 27. General view of the "KS" bullet*

Impressive elements - meal No. 3, diameter 3.50 mm.

The weight of the striking elements is 43 grams (approximate quantity – 150-170 pcs.) The range of effective firing (depending on the length of the gun barrel) is 50-75 meters.

The speed is 500 m/s.



## **CHAPTER 5. PREPARATION OF SUBDIVISIONS OF THE RF FOR ATTACKING DRONES USING 12 CALIBER GUNS**

The adversary is showing interest in this topic and is training its units to destroy drones with 12-gauge rifles. The photo below shows a training ground that fully simulates the VOP. A bench shooting machine is installed.



*Photo 28-29. Arrangement of the training place*





*Photo 30. The process of training a soldier of the Russian Federation. (uses a semi-automatic MP-155 rifle with a magazine extension for 8 rounds and a barrel length of 71 centimeters)*



*Photo 31. A Russian serviceman shows the results of the destruction of the "FPV drone".*





*Photo 32. Training of Russian servicemen using a combination of different types of small arms*

*(the enemy trains skills and tactical techniques for the combined use of 12-gauge rifles together with AK-74-type assault rifles to increase the probability of defeating FPV drones.)*

## CHAPTER 6. COMBAT EXPERIENCE OF UNITS OF THE RF IN DESTROYING SOU UAVS WITH THE HELP OF 12 CALIBER GUNS.



*Photo 33. Shows the moment of destruction of the Ukrainian FPV drone by the enemy (the Russian serviceman was in an ambush out of sight of the UAV and hit the Ukrainian drone with 3 shots at a distance of 35-40 meters)*



*Photo 34. Russian servicemen display as a trophy the downed Ukrainian FPV drone of the "wing" type with the help of a 12-gauge gun*

## THE FINAL PART

The Ministry of Defense of the Russian Federation is actively implementing the use of 12-gauge rifles, in particular the MP-155 type, to counter SOU UAVs. The purchase of these rifles is part of a vision aimed at improving anti-drone systems, which has become one of the priority areas in the training of the Russian military.

Units of the Russian Federation pay considerable attention to training personnel in the effective use of 12-gauge rifles to shoot down drones. This includes both training in the field, close to actual combat, and the involvement of civilian range instructors to improve marksmanship skills. The development of the infrastructure and the organization of training emphasize a serious approach to the adaptation of the enemy's units to the fight against SOU UAVs.

The inculcation of the culture of using 12-gauge rifles in military units of the Russian Federation is noted. Enemy personnel undergo training in full equipment, simulating the conditions of real combat operations, which increases readiness for operational use of weapons on the battlefield. This approach provides them with an additional tool in the arsenal of means of countering drones.

In addition, the Ministry of Defense of the Russian Federation initiated and developed two types of specialized cartridges for the destruction of drones, which indicates the technological adaptation of weapons for specific purposes. This gives the units of the Russian Federation greater flexibility and effectiveness in countering unmanned aerial vehicles on the battlefield.

the Russian military has also developed various tactical approaches to the use of 12-gauge rifles. This includes using weapons in coordination with others means of combating drones, such as EW, equipment with rifles of assault groups or crews of combat vehicles. Such tactics reduce the effectiveness of reconnaissance and strike drones of the SOU, creating additional difficulties for their use.

So, we can see that the Russian Federation has significantly strengthened its capabilities in the field of countering SOU drones, using guns, ammunition and tactical techniques. This confirms the seriousness of the approach to the use of small arms in the fight against UAVs, which indicates the adaptation of the Russian military to the modern challenges of combat operations, where drones play a key role.

**LIST OF ABBREVIATIONS AND TERMS**

Abbreviations and conditionals marking	Full phrase and abbreviated concepts
1	2
BpLA	Unmanned aerial vehicle
VOP	Platoon base
SOU	Defense Forces of Ukraine
FPV	A drone with first-person control

## FOR NOTES

[illegible]

