Instruction Manual

Counteracting the Activity of Russian Federation Reconnaissance UAVs in the Frontline Zone

Distribution Restrictions: None

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Purpose of This Instruction

The objective of this document is to minimize the risks to military units and civilian organizations (individuals) engaged in military operations by counteracting the activities of enemy reconnaissance UAVs.

Types of UAVs

Primary types of long-range enemy reconnaissance UAVs include:

- **Orlan**
- **Supercam**
- **Zala**

Flight Characteristics

- **Speed:** Typically between 60-90 km/h.
- **Altitude:** Generally 1-2 kilometers; Orlan can operate up to 5 km.
- **Live Transmission:** When broadcasting live, UAVs maintain an altitude of at least 800 meters at maximum distances to prevent communication loss due to the radio horizon.

Risk Zones

Frontline areas extending up to **50 km** from the line of contact are considered risk zones. Some UAVs can operate at ranges up to **70 km**.

Possible Fire Damage Following UAV Reconnaissance

- **Iskander Missiles or S300 Systems:** Effective throughout the UAV reconnaissance zone.
- **MLRS (Multiple Launch Rocket Systems):** Practical effectiveness up to 20 km, sometimes up to 40 km with Tornado MLRS.
- **Lancet Strike UAVs:** Operational up to 50 km, effectively between 20-30 km.

Time Between Detection and Potential Attack

The enemy's reaction time is decreasing. Strikes have occurred within minutes to a few hours after a target is detected.

- **Iskander systems:** Ready to fire within 10-20 minutes.
- **Lancet UAVs:** Require 15-30 minutes for deployment and approach.

Reconnaissance UAV Targets

Military Targets:

- Roads, key military equipment (e.g., EW stations, radars, air defense systems)
- Heavy equipment (tanks, APCs, MLRS)
- Helicopters, airplanes
- Personnel gatherings, command centers, training grounds
- Ammunition and logistics storage facilities

Civilian Targets:

- Construction machinery for fortifications
- Food warehouses
- Railway hubs, bridges, crossings
- Fuel storage, power stations
- Military-related industrial sites

UAV Detection Methods

- Military radio direction-finding networks
- UAV detectors and spectrum analyzers
- Visual monitoring by military personnel
- Thermal imaging surveillance systems

- Air defense systems
- Electronic Warfare (EW) systems

General Recommendations for Protection Against Reconnaissance UAVs

1. **Camouflage** all military equipment even 40-50 km from the frontline.
2. **Avoid clustering** vehicles near headquarters or personnel housing.
3. **Disperse vehicles** at training grounds and during exercises.
4. **Avoid stopping** military equipment at popular fuel stations.
5. **Limit stops** on highways to 10-15 minutes.
6. **During breakdowns:** Leave heavy vehicles promptly and monitor the sky for Lancet attacks before towing.
7. **Disperse construction machinery** instead of clustering.
8. **Regulate logistics traffic** to avoid congestion at storage sites.
9. **Operate primarily at night** to avoid UAV visual detection; prefer moonless or overcast nights.
10. **Use bad weather** and windy days for major maneuvers.
11. **Avoid predictable activity patterns**, such as routine fuel deliveries.

Actions Upon UAV Detection

- **Goal:** Avoid attracting attention.
- **Vehicles on open roads:** Continue movement without stopping.
- **Personnel:** Remain under cover.
- **Heavy equipment:** Cease movement and seek shelter.
- **Artillery and MLRS:** Suspend operations.
- **Supply trucks:** Avoid traveling to and from logistics facilities.
- **Vehicle clusters:** Disperse immediately or remain stationary if dispersal is not feasible before UAV arrival.

Actions After a Precision Strike (Iskander or Lancet)

- Do not immediately dispatch vehicles to recover damaged equipment.
- Avoid immediate salvage operations.
- Commanders must not promptly arrive or leave the strike site, to avoid further targeting.

Additional Tips

1. **Coordinate with local command** to receive real-time UAV detection alerts.
2. **Request timely updates** on UAV activities over your rear positions.
3. **Invest in UAV detection technology** or set up your own monitoring posts using SDR receivers.