# Russian invisibility cloaks backfire as Ukrainian drones exploit thermal flaws



The ongoing conflict between Russia and Ukraine starkly illustrates the failures of modern military technology, exemplified by the disastrous implementation of so-called invisibility cloaks by Russian troops. Designed to mask thermal signatures and shield soldiers from night vision detection, these cloaks have turned into a perilous liability, contributing to rising casualties among Putin's forces. With reports highlighting both defects in the technology and a lack of adequate training for personnel, it is clear that these garments have become more of a threat than a safeguard.

Recent footage from Ukrainian sources reveals that Russian soldiers decked out in these anti-thermal cloaks are failing miserably in their attempts to go undetected. Far from providing the intended invisibility, these cloaks create glaring cold spots set against the warmer surroundings, rendering them easy prey for Ukrainian drones equipped with thermal imaging. The ability of Ukrainian forces to identify these heat signatures has improved dramatically, allowing for accurate strikes even in challenging visibility conditions.

The shortcomings of these cloaks are compounded by the overconfidence of Russian soldiers in their supposed stealth abilities. Military analysts warn that when a soldier remains stationary for extended periods, the cloak's efficacy in masking body heat diminishes, effectively unveiling their location. This has made Russian troops sitting ducks for Ukrainian drone operators, who have adapted their strategies to exploit the vulnerabilities these cloaks present.

In a parallel development, both Russia and Ukraine have conducted a notable prisoner exchange, each returning over 300 soldiers in a gesture that seems more about optics than genuine cooperation amid ongoing conflict. Ukrainian President Volodymyr Zelenskyy proclaimed this exchange on his Telegram channel, celebrating the return of various military personnel while underscoring the humanitarian angle. However, this moment of supposed goodwill is overshadowed by the context of escalating violence.

Kyiv has recently faced a devastating drone and missile attack that injured dozens, with a series of explosions prompting residents to seek refuge in underground stations. The Kyiv City Military Administration described this assault as one of the largest combined strikes to date, with debris from intercepted missiles wreaking havoc across multiple districts. This escalation highlights the chilling reality of contemporary warfare, where brief moments of diplomatic engagement cannot mask the persistent, brutal violence.

While both nations engage in occasional prisoner swaps, the ongoing conflict showcases the relentless military action that defines this war. Following peace talks held in Istanbul, the objective to exchange a total of 1,000 prisoners each seems like a distant goal in the face of rising hostilities, emphasizing the superficial nature of any semblance of cooperation. As the consequences of this war continue to mount, the failures of military technology, such as the inadequate invisibility cloaks, serve to underscore the tragic unpredictability of conflict and its human toll.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.dailymail.co.uk/news/article-14745989/Russias-faulty-invisibility-cloaks-Putin-troops-sitting-ducks-Ukraine-drones.html?ns_mchannel=rss&ns_campaign=1490&ito=1490> - Please view link - unable to able to access data
2. <https://www.kyivpost.com/post/41476> - A video released by Ukraine’s 63rd Brigade shows Russian soldiers wearing anti-drone cloaks that fail to conceal them effectively, leaving them open to attack by Ukrainian drones. The footage reveals that these cloaks, designed to deceive thermal imaging, do not provide sufficient concealment, allowing the soldiers to be detected and targeted by Ukrainian drones equipped with thermal imaging. The video highlights the ineffectiveness of these cloaks in providing adequate camouflage against Ukrainian drone attacks.
3. <https://euromaidanpress.com/2025/04/29/russias-cloaks-of-invisibility-fail-to-fool-ukrainian-drones-on-front-lines/> - Ukrainian drone operators reveal how Russian troops using new anti-thermal 'invisibility cloaks' on the Novopavlivka front become easier targets due to overconfidence. The cloaks, intended to make soldiers invisible to thermal imaging, have limitations. If the enemy stays in one spot for too long, even these cloaks start to warm up, making their heat signatures easier to detect. Additionally, Ukrainian drone operators are trained to spot human silhouettes, making the cloaks less effective in evading detection.
4. <https://www.express.co.uk/news/world/1820187/ukraine-war-russia-invisibility-cloaks-vladimir-putin> - Ukraine unveiled 'invisibility cloaks' that allow its soldiers to hide from Russian forces. The cloaks, created by Brave1—a defense technology project sponsored by the Ukrainian government—do not show up on Russian thermal imaging cameras and drones. The invention works by blocking heat radiation, rendering the soldier invisible to the enemy. The cloaks have already been used by the 35th Marine Brigade during the Ukrainian counteroffensive, demonstrating their practical application in the field.
5. <https://www.abc.net.au/news/2025-05-07/ukraine-russia-prisoner-swap/105261630> - More than 200 Ukrainian soldiers have been released by Russia as part of a prisoner of war swap between Kyiv and Moscow. Russia and Ukraine each handed over 205 captured soldiers in a deal brokered by the United Arab Emirates. The Ukrainian president confirmed the news on social media, sharing images of the freed soldiers reuniting with loved ones and holding aloft the country's flag. This exchange highlights ongoing efforts to address the fates of captured soldiers amid the conflict.
6. <https://kyivindependent.com/ukraine-returns-175-ukrainian-service-members-from-russian-captivity/> - Ukraine has brought home 175 Ukrainian soldiers in a one-for-one prisoner exchange with Russia, mediated by the United Arab Emirates. The released Ukrainian servicemen had been captured while defending multiple regions, including Mariupol, the Azovstal steel plant, Donetsk, Luhansk, Kherson, Kharkiv, Mykolaiv, Zaporizhzhia, Sumy, and Kursk. All those who returned will receive immediate medical and psychological assistance, emphasizing the humanitarian aspect of the exchange.
7. <https://www.ft.com/content/efd4a71e-6b6d-468a-98f2-6653144963ce> - Ukraine and Russia have initiated their largest prisoner exchange since the beginning of their war, following initial peace talks held in Istanbul—the first in three years. The agreement involves the exchange of 2,000 prisoners, split equally between the two sides, occurring in three phases over three days. The first phase saw the return of 270 Russian military personnel and 120 civilians, with Ukraine receiving 390 of its captured individuals. This development marks rare cooperation amid stalled ceasefire efforts.