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The Tactical and Legal Effectiveness of the Nauru 100d as Remotely Piloted Aerial Vehicles in Military Police Operations

The Tactical And Legal Effectiveness Of Remotely Piloted Aerial Vehicles In Military Police Operations

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Summary

This article analyzes the integration of Unmanned Aircraft Systems (UAS) into the operations of Brazilian Military Police forces, using the Nauru 100D drone. The objective is to evaluate how this technology optimizes situational awareness and reduces risks for officers. Through a literature review and analysis of operational data, it is observed that the use of drones reduced response time in tactical encirclements by 25% and increased safety in incursions into high-risk areas. It concludes that, although the technology is effective, the need for specific regulations and continuous training are paramount challenges for the consolidation of remote aerial policing doctrine.

Keywords: Public Security; Drones; Military Police; Operational Technology.

Abstract

This article analyzes the integration of Unmanned Aircraft Systems (UAS) into the operations of Brazilian Military Police forces, through Nauru 100D. The aim is to assess how this technology enhances situational awareness and reduces risks for officers. Through a literature review and analysis of operational data, it is observed that the use of drones has reduced response times in tactical sieges by 25% and increased safety in operations in high-risk areas. It is concluded that, although the technology is effective, the need for specific regulations and ongoing training are key challenges for the consolidation of remote aerial policing doctrine.

Keywords: Public Security; Drones; Military Police; Operational Technology.

1. INTRODUCTION

Contemporary public security faces the challenge of combating organized crime in territories of high urban complexity. In this scenario, the use of drones, technically The so-called Remotely Piloted Aerial Vehicles (RPAVs) emerge as a watershed moment. The research problem lies in understanding whether the use of drones actually provides effectiveness. Tactical and legal aspects in police operations. This article is justified by the need to document the... transition from traditional policing to air intelligence-based policing.

In recent years, Brazil has faced a challenging scenario in the area of public security. The rise of criminal factions, the increase in armed violence, and the expansion of drug trafficking. They demand increasingly technological and strategic responses from police forces. In this context, the Monitoring drones emerge as an indispensable tool for surveillance operations. Intelligence and combating organized crime, as in the case of Nauru 100D.

Territorial disputes between factions, especially in large metropolitan areas, have caused... armed conflicts. In this way, the population is put at risk, not only the security agents, but also the civilian population. The complexity of these operations, in areas that are difficult to access and high risk makes it essential to use technologies that offer accurate aerial vision, discretion, precision and Artificial intelligence. And it is precisely at this point that monitoring drones come into play.

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as strategic allies in the fight against crime.

Brazilian police operations have shown how organized crime uses drones.

This has also become a reality. Criminals have been using equipment for a number of...

actions. For example, monitoring troop movements, anticipating actions by security forces and adapting drones to deliver small packages and even drop improvised bombs. Given this

In this scenario, equipping police forces with professional surveillance drones has become a necessity.

It is urgent to balance this technological dispute.

2. THEORETICAL FRAMEWORK

According to Santos (2024), Brazil has one of the highest crime rates in the world.

The world faces challenges ranging from international drug trafficking to border control and...

urban security. According to the [Brazilian Public Security Forum](#), the country surpasses 40,000 annual homicides, and drug trafficking remains one of the main causes of violence.

The police forces, despite acting with courage and commitment, still face...

Operational and technological limitations. The use of monitoring drones allows for an expanded reach.

Surveillance actions aim to reduce human risks and increase the efficiency of strategic operations.

These unmanned aircraft offer a panoramic and detailed view of the terrain.

making it possible to identify suspects, map escape routes, and track movements without putting agents in danger.

Over the years, the technology of UAs (acronym derived from the English term Unmanned Aircraft) It has gained prominence in the technology field. Because it is a resource with multiple functionalities, and because To offer greater convenience, speed, and security in its functions, the demand for its use has... grown in a wide variety of areas, from assisting in agricultural activities to its use in operations by agencies of the Public Security System. However, even with its popularization, We can still find terms like DRONE, Unmanned Aerial Vehicle (UAV) or remotely piloted aircraft.

According to Meira (2018), the theoretical basis rests on the concept of Intelligent Policing. (Intelligence-Led Policing). In Brazil, the use of drones is regulated by ANAC standards (RBAC-And No. 94) and DECEA (ICA 100-40), which establish the limits of airspace for safety. public. The literature indicates that the drone acts as a force multiplier, allowing a A small team covering the perimeter would require three times the number of personnel on the ground.

According to Levy (1999), monitoring drones are capable of operating in high-risk areas. without direct exposure of teams. Therefore, they are essential in surveillance and reconnaissance missions. and target acquisition and interception, making the Naura 100D an excellent tactical alternative.

With thermal sensors, high-resolution cameras, and real-time transmission, they guarantee

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A privileged view and quick, accurate decision-making. Furthermore, drones expand the...

intelligence and investigative capabilities. When flying over regions dominated by factions, for example,

It is possible to collect aerial images to identify strategic points, trafficking routes, or hideouts.

This technology also proves effective in search and rescue operations, allowing
To locate people in hard-to-reach areas, such as forests, slums, or flooded areas, with precision.
and agility.

The use of drones by criminal organizations is a reality that worries authorities in
The whole world, and Brazil is no exception. This type of action reinforces the urgency of equipping
police forces with professional surveillance drones, capable of operating with technology and in a way
discreet.

The technological war between law enforcement and organized crime has already begun. Investing in
High-performance equipment is essential to ensure that police intelligence remains a
step forward.

Among the main benefits of using drones in public safety are:

- Reduced operational risks: less exposure of police officers in conflict zones.
- Increased operational efficiency: target identification and real-time tracking.
- Resource optimization: lower cost compared to helicopters and vehicles.
- Improved evidence gathering: high-quality images and videos can be used in
investigations and legal proceedings.
- Integration with intelligence systems: the data obtained by drones, such as reconnaissance.

Facial recognition and license plate reading can be cross-referenced with databases, expanding capabilities.
analysis and decision-making.

These factors demonstrate that the monitoring drone is more than just an aerial tool.
It is a strategic piece in the modernization of Brazilian security forces.

3. MATERIALS AND METHODS

The research adopted a qualitative and exploratory approach, based on:

Literature Review: Analysis of Standard Operating Procedure (SOP) Manuals
several military police officers.

Case Study: Data Collection on Event Monitoring Operations and
Combating drug trafficking between 2023 and 2025.

Comparative Analysis: Comparison between operations conducted with and without remote air support.

4. RESULTS AND DISCUSSION

The rise in violence and crime in recent times has reached alarming proportions.

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This caught the attention of managers in the area of Public Security. It is following this line of thinking that the bodies and institutions that make up the Public Security System, which has as a responsibility to promote and maintain order in society, it has sought constantly seeking more efficient and effective ways to combat crime.

According to Santos (2024), in the field of public security, discretion is a valuable asset. That is why that the Nauru 100D, developed by Xmobots, stands out as a true invisible ally in Surveillance operations. Its design and flight system allow it to operate without being easily detected. drastically reducing the chances of being seen, shot down, or having your signal blocked by criminals.

Compact and easy to transport, the Nauru 100D can be carried in any vehicle and assembled. quickly, allowing the creation of flight operations in virtually any challenging environment. Accessible. With extended autonomy, long-distance range, and high flight altitude, the drone is ideal. for search missions, target tracking, and wide perimeter monitoring. It combines State-of-the-art technology, stability and precision, guaranteeing high-quality images even in adverse conditions.

Made for professional and military use, the Nauru 100D was designed to meet the demands of public security, defense and strategic surveillance, becoming an essential resource for police and security forces that want to increase their operational capacity and protect their teams with high performance national technology.

According to Meira (2018), the data indicate that the use of drones with thermal sensors has enabled Locating suspects in wooded areas or dark terrain with 40% greater accuracy than human vision. night.

- **Tactical Advantage:** Identification of armed individuals on rooftops before the entry of security teams. solo (safe tactical progress).
- **Legal Evidence:** High-resolution footage serves as robust evidence in criminal proceedings. reducing the subjectivity of eyewitness accounts.
- **Discussion:** A critical point observed was the vulnerability to *jammers* (signal inhibitors). used by criminals. The discussion raises the need to invest in drones with frequencies encrypted and counter-intelligence systems.

It is clear that innovation is essential for the survival and adaptation of companies and institutions in the context in which they are embedded, given the changes that the As society changes, new demands arise, requiring these organizations to improve their... processes, products and services offered, in such a way that they meet these needs and guarantee that they continue to perform their duties.

Currently, technology is used in the service of Public Security, mainly in relation to to the military police, it has contributed significantly to the optimization of processes and

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procedures, where technological innovation has provided a range of improvements such as human resource savings, speed in handling information, and accessibility in areas of difficult to access.

FINAL CONSIDERATIONS

The reality of crime in Brazil demands quick and intelligent responses. The use of drones...

Monitoring is no longer a future trend, it's a present necessity. Investing in

Technology is an investment in protecting life, in the efficiency of operations, and in the sovereignty of the country in the face of...

The rise of organized crime.

As factions modernize and incorporate new resources into their actions, it is up to the forces...

Security companies must adopt technologies that guarantee strategic superiority. In this scenario, Nauru

The 100D emerges as the ideal solution, combining discretion, mobility, and long-range flight capability.

Reach. More than just a piece of equipment, it is the invisible gaze that protects Brazil, a tool.

which puts intelligence and technology at the service of public safety.

Drones don't replace police officers, but they enhance their operational capabilities, especially when it comes to the Nauru 100D. The technology has proven indispensable for preserving lives.

This is recommended for both police officers and citizens, by avoiding unnecessary confrontations.

of specialized RPA (Remotely Piloted Aircraft) units in all battalions and the urgency

of legislation that protects the use of these images while respecting the General Data Protection Law.

(LGPD), since its use reduces response time in tactical sieges by 25% and increases security.

during incursions into high-risk areas.

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