

## Utilization of UAV Satbrimobda Kepri to Suppress Transnational Crime on the Indonesia-Malaysia Border

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### ABSTRACT

This research discusses the utilization of UAVs (Unmanned Aerial Vehicles) for patrolling airspace by the Satbrimob of the Riau Islands Regional Police (Kepri) to combat transnational crime in the Indonesia-Malaysia border, specifically in the maritime area of the Riau Islands. The research employs a qualitative method with a descriptive analysis approach. Data was collected through in-depth interviews with members of Satbrimob Polda Kepri, field observations, and analysis of related documents. The study finds that the use of UAVs allows for broader and more detailed monitoring, as well as quicker responses to emergency situations. Additionally, UAVs provide the capability to gather real-time data that can be used for further analysis and operational planning. The study concludes that the implementation of UAV patrol strategies by Satbrimob Polda Kepri has significant potential in reducing transnational crime in the Indonesia-Malaysia border.

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## **INTRODUCTION**

The Indonesia-Malaysia border, especially in the Riau Islands (Kepri) region, is one of the strategic areas that is vulnerable to various forms of transnational crime. The border between Indonesia and Malaysia is a very strategic water area because this water area is one of the most densely populated areas compared to other Indonesian water areas, Batam, Tanjung Pinang, Karimun and Bintan are regencies that directly border Malaysia and, in these waters, transnational crimes often occur. Both countries claim that their territorial boundaries are 12 nautical miles or 22 km only meeting in the Malacca Strait and the Singapore Sea. Illegal activities such as drug smuggling, human trafficking, illegal fishing, and smuggling of goods often occur in this area, considering the vastness of the water area and the many rat routes or non-procedural ports that are difficult to monitor conventionally. These crimes not only harm the country's economy, but also threaten the security and sovereignty of the nation, based on sources that the number of transnational crimes in border areas is increasing every year (Muhamad, 2015).

Satbrimob Polda Kepri is a special unit owned by the Kepri Police Headquarters, based on Police Regulation no. 14 of 2018 concerning the Organizational Structure and Work Procedures of Regional Level Units tasked with overcoming high-intensity Kamtibmas threats. In addition, Satbrimob can also be assigned to assist the general police to carry out their duties. Not only that, if it is associated with transnational crimes on the Indonesia-Malaysia border, Satbrimob should also have an important role, because Satbrimob Polda Kepri basically has the ability to assist regional police in carrying out preventive and repressive actions against perpetrators of transnational crimes. However, geographical challenges, limited human resources and technology often become obstacles in carrying out its main tasks. Therefore, it is very necessary to analyze the role of innovation in formulating strategic steps to be very important to increase the effectiveness of Satbrimob Polda Kepri's performance in suppressing transnational crimes.

The use of Unmanned Aerial Vehicle (UAV) technology or unmanned aircraft offers a potential solution to address these challenges. UAVs have the ability to conduct real-time and comprehensive monitoring, as well as provide a rapid response to threats. This technology can also be used for accurate data collection, which can then be analyzed for planning and implementing police operations in order to take action to arrest transnational criminals. This study aims to analyze the use of UAVs by Satbrimob Polda Kepri in suppressing transnational crime on the Indonesia-Malaysia border, namely the Riau Islands Province. The main focus of this study is to identify the benefits and challenges in implementing UAVs, as well as to develop recommendations for strategies that can be adopted to improve border security.

## LITERATURE REVIEW

### *Transnational Crime Theory*

Transnational crime includes various illegal activities that cross national borders, such as drug smuggling, human trafficking, illegal fishing, and smuggling of goods. According to research by Nugroho (2017), the Indonesia-Malaysia border area is one of the areas most vulnerable to transnational crime due to its complex geographical characteristics and vast waters that are difficult to monitor comprehensively. These crimes are not only economically detrimental but also have an impact on national security and state sovereignty (Yuniarti, 2018). As explained in the introductory chapter, the number of crimes occurring on the Indonesia-Malaysia border is increasing and the types and modus operandi of the perpetrators are varied, so this makes it difficult to realize national security.

### *Role Theory*

The Mobile Brigade Unit (Satbrimob) has special duties and functions in maintaining security and order, including in border areas. Based on existing regulations and rules, the Brimob Unit of the Riau Islands Police is tasked with dealing with high-intensity crimes using firearms, demonstrations, terrorism and assisting, complementing and replacing the duties of the regional police (Perkap 14, 2018). Research by Sutanto (2019) shows that the Brimob Unit of the Riau Islands Police has a strategic role in law enforcement and supervision efforts in border areas. However, limited human resources and technology are often obstacles in carrying out these tasks. Currently, the Brimob Unit of the Riau Islands Police already has the ability to operate UAVs and even has the UAV equipment itself, but at present this ability is only used by the Brimob Unit for information gathering activities for Public Relations and Information purposes only, and has not been involved in Police operational activities. Therefore, innovation is needed in utilizing the use of UAVs by the Brimob Unit of the Riau Islands Police in conducting patrols to suppress transnational crime.

### *Security Theory*

The use of Unmanned Aerial Vehicle (UAV) technology has grown rapidly and is used in various security operations around the world. UAVs have the ability to carry out real-time and comprehensive monitoring, as well as provide a rapid response to threats. According to Smith and Jones (2020), UAVs can increase the effectiveness of patrol operations by providing accurate and updated data, which is very important in making fast and precise decisions. The use of UAVs in border security operations has proven effective in several countries, such as the United States and Europe. (Brown, 2021). The use of UAVs will be very effective in helping to carry out patrols air and find points of location where transnational crimes occur, considering that the waters of the Riau Islands province are very large and the ratio of police officers and equipment is not ideal, so that the use of the latest technology such as UAVs is needed. Security actors, such as the government, can use securitization to mobilize resources and policies, perhaps even restricting human rights, to deal with perceived threats. The ability

to take action against perpetrators of these crimes will realize national security (Amable, 2022).

### *Theory of Cooperation*

Cross-agency cooperation, both at the national and international levels, is very important in monitoring and enforcing the law in border areas. According to Rahayu (2018), good cooperation between various related parties can improve coordination and exchange of information, so that the response to the threat of transnational crime can be faster and more effective. This cooperation covers various aspects, ranging from joint training, joint operations, to the exchange of intelligence information. The Special Criminal Directorate and the Directorate of the Water Police of the Riau Islands Police as the leading sector in handling transnational crimes must cooperate with the Riau Islands Police Mobile Brigade Unit, because currently only the Mobile Brigade has UAV capabilities and equipment.

### *Regulation Theory*

Formulation of regulations on the use of UAVs by Satbrimob Polda Kepri to be able to be actively involved in suppressing transnational crimes through the use of technological advances in non-conventional patrols, namely patrols using UAVs or Drones. So far, Satbrimob Polda Kepri already has an ICT (Information and Communication Technology) Section which oversees the Communication System Sub-Section and the Communication and Information Services Sub-Section. These two sub-sections in carrying out their duties using UAVs to gather information, but the UAVs have not been utilized optimally to assist regional police in eradicating crimes, especially transnational crimes that often occur on the Indonesia-Malaysia border. According to experts, one of the most important elements that cannot be separated from the formation of regulations is the interaction of political power. This is because law is a political product (Daniel S. Lev (1972: 2). By seeing the existence of political intervention in this law, the political decision process of forming regulations as a direct and observable conflict and the interests formed can be understood as policy preferences (Dahl, 1957).

From the various literatures that have been reviewed, it can be concluded that the use of UAVs by Satbrimob Polda Kepri has great potential in assisting regional police in suppressing transnational crimes on the Indonesia-Malaysia border. Effective implementation of this strategy requires adequate infrastructure support, trained human resources, and solid cooperation between various related parties. This study is expected to provide real contributions in efforts to improve security in the Indonesia-Malaysia border area, especially in the maritime area of the Kepri Province from various types of transnational crimes.

### ***Policy Theory***

Muzakir Zabir (2018:98) states that leadership policy is a set of leadership actions designed to achieve certain results expected by employees as leadership constituents that become the outline and basis for plans in implementing organizational affairs and tasks that are developed according to the situation and conditions. In this journal, the policy of the highest leader of the Riau Islands Regional Police (Kapolda Kepri) is a milestone in the start of the involvement of UAVs by Satbrimob PoldaKepri in police operations such as eradicating crime. transnational. With the leadership policy, the obstacles that have been faced by the Satbrimob Polda Kepri can be overcome with the "blessing" of the Regional Police Chief.

### **METHODOLOGY**

In writing this paper, the author uses a qualitative method, as stated by Sugiyono in his book entitled qualitative, quantitative and R and D research methods, stating that the qualitative method is a writing method used in studying and researching a condition of natural objects and subjects, in qualitative writing placing researchers as key instruments (Sugiyono 2018, p. 213) which is used to investigate, find, describe, and explain a phenomenon. The approach used is to conduct in-depth interview activities with sources, namely ICT personnel of the Riau Islands Police Mobile Brigade Unit and conduct a literature study of related documents, both monthly reports, SOPs, laws and other sources. The use of a descriptive analysis approach in writing this journal is basically more in accordance with the purpose of writing the journal, with a descriptive analysis approach, the writing related to the use of UAVs by the Riau Islands Police Mobile Brigade Unit in reducing the number of Transnational crimes by implementing patrols in airspace along the coastline of the Riau Islands and Malaysian maritime borders as the Indonesia-Malaysia Border (Ristanto et al., 2020).

### **RESEARCH RESULT**

#### ***Benefit Use UAV in Effectiveness Patrol Room Border Air***

UAVs have proven to be an effective tool in border surveillance, providing monitoring capabilities that conventional methods do not have. The use of UAVs allows for broader and more detailed surveillance, as well as faster response to emergency situations. This is in line with the findings of Smith and Jones (2020) which show that UAVs can increase the effectiveness of patrol operations by providing accurate data so that this information can be used base for the team Which on duty Repressive to take action against transnational criminals. Based on the theory above, it can be concluded that the UAV owned by the Brimob Unit of the Riau Islands Police in assisting the Regional Police in eradicating forms of transnational crime in the maritime border areas of Indonesia and Malaysia which are increasingly rampant every year due to the gap between the area, geographical conditions and the ratio of the number of police and equipment. Data obtained from interviews and observations show that UAVs are able to monitor large areas more quickly and efficiently than conventional methods. UAVs can also identify suspicious activities and provide information real-time

to the command center for faster response. With method map Ports non procedural or Rat ports in the Riau Islands maritime region using UAVs makes it easier for the regional police tasked with eradicating transnational crime. Data collected by UAVs allows the identification of patterns and trends in illegal activity, so that patrols can be focused on areas that need the most surveillance. This increases efficiency and effectiveness operation patrol. Mapping Harbor-harbor non-procedural or what is commonly known as a rat port by the Riau Islands Police can make it easier for law enforcement officers to take action against the perpetrators of transnational crimes, so that national security can be realized as in theory. as conveyed by Buzan (security theory).

***Obstacles Recorded by Researchers that Disrupt the Process of Utilizing UAVs to Combat Transnational Crime***

- a. The policy of the Chief of Police of the Riau Islands. There is no willingness from the highest leadership of the police The Riau Islands Region must create a policy to involve personnel from the Riau Islands Police Mobile Brigade Corps and uavs to be involved in patrolling the airspace of the Riau Islands waters to help eradicate transnational crime (unwilling).
- b. Not yet existence Structure Organization UAV. Satrbimob Regional Police Kepri still does not have a UAV Squadron organizational structure like the one owned by the Indonesian Police Mobile Brigade Corps so far, the Kepri Police Mobile Brigade Corps Drone Unit is still under the ICT Section structure which oversees Subsection Yankom and System of Communication, where subsection this more likely to work in the domain of Public Relations and Information for the public. The organizational structure that has a UAV Unit to carry out surveillance or reconnaissance is only at Mako Mobile Brigade in Depok, However Unit Mobile Brigade Territoriality such as the Satbrimob Polda Kepri still does not have this unit, therefore That must done revitalization structure organization, so that Satbrimob Regional Police Riau Islands Also own sub sexy UAV and Drone who specifically carry out surveillance and assist with police operational tasks.
- c. UAV specifications that still do not meet the Standard. Spectek (Specification) UAV Which owned by Satrbimob Regional Police Kepri is still too low, because the flight duration is only under 60 minutes and the UAV flight distance is not far from 5 km, which is very different from Drone and UAV Which owned by Corps Mobile Brigade Indonesian National Police which has drone Which can be operated duration more than 20 Hours and a distance of 500 Km.
- d. The lack of Personnel. Still lack of quantity personnel Drone and UAV operators or pilots from Satbrimob Polda Kepri. Currently in Satbrimob Polda Kepri, the ICT Section consists of 9 personnel but only 2 people have the ability and certification as UAV and Drone pilots. Therefore, revitalization must be carried out on the organizational structure of Satrbimob Polda Kepri to complete the number of qualified personnel as UAV or Drone pilots.

- e. The absence of an Integrated Command Center. The Integrated Command Center is one of the most important facilities in the utilization of this UAV, because this command center functions as a data center, command and information from the UAV patrol team. Through this command center, UAV performance can be monitored, and team in post command This can quick to inform What monitored by UAV to the action team in the field for further action.
- f. There is no Regulation on the Use of uavs for Police Operations. There is no regulation that specifically mentions and regulates the involvement and use of the Drone Unit or UAV Satbrimob Polda Kepri in helping to eradicate transnational crimes in the Indonesia-Malaysia border region. This research is expected to provide a positive contribution to the Unit Mobile Brigade Regional Police Riau Islands in analyze strategy utilization UAV as an effort to improve security in the Indonesia-Malaysia border region in assisting the main tasks of the Regional Police in the Archipelago Province Riau and become a reference for other institutions facing similar challenges. Although in this study various kinds of very principled constraints, but researchers are confident that utilization UAV through implementation patrol in room Air can reduce and even eradicate transnational crime.

**Table 1. Amount TP Worker Migrant Illegal (PMI) which Handled by the Directorate of Special Crimes of the Riau Islands Police**

No	Year	Amount Action Criminal	Type
1	2019	11	Illegal Pmi
2	2020	14	Illegal Pmi
3	2021	23	Illegal Pmi
4	2022	45	Illegal Pmi
5	2023	91	Illegal Pmi

**Table 2. Amount TP Smuggling Narcotics which Handled by Directorate Regional Police Water Police Riau Islands**

No	Year	Amount Action Criminal	Type
1	2020	4	Narcotics
2	2021	4	Narcotics
3	2022	1	Narcotics
4	2023	2	Narcotics
5	2024	-	Narcotics



**Figure 1. Specification Drone Which owned by Mobile Brigade Corps Regional Police Riau Islands**

## DISCUSSION

### *Policy Regional Police Chief Riau Islands Which Still not Yet Want to Involving UAVs in Police Operations (Unwilling)*

Unwilling or this unwillingness is an attitude shown by the highest leader of the Riau Islands regional police and the police leaders who are directly involved in handling transnational crimes on the Indonesian and Malaysian borders, such as the Director of the Water Police, Special Crimes and Criminal Investigation Directorate. Drugs. On problem This writer propose that the highest leader of the Riau Islands Regional Police and other sub-work unit leaders open themselves to the capabilities and technology owned by the Satbrimob Polda Kepri. When there is a leadership policy, in this case the Chief of Police of Kepri to be able to involve UAVs in police operations, then obstacles such as infrastructure, personnel, and even regulations can most likely be increased in capacity. When the leadership police area Riau Islands This Already realize potential owned by Satbrimob, there will be an intention or desire to make maximum use of this potential to realize vision And mission Regional Police Riau Islands, remove ego sectoral is the main key to eliminating this unwilling nature.

As for Which can done by Commander Unit Mobile Brigade Riau Islands Regional Police For convincing about utilization UAV by Satbrimob to Head Police Regional Police Riau Islands with method promote capabilities in mastering UAVs in the following ways :

1. Carrying out an equipment roll call and showing the Regional Police Chief that the Riau Islands Police Mobile Brigade Corps has the equipment to carry out surveillance .
2. drone operators and pilots owned by ICT personnel from the Brimob Police of the Riau Islands, show of force is one method that can be used to promote ability individual And ability the unit owned by the Satbrimob Polda Kepri to the Regional Police Chief.

*The Formation of an Organizational Structure that Covers the UAV Unit or Squadron at the Satbrimob Polda Kepri*

The legal umbrella that protects and is used as a guideline and work instructions by the Satbrimob Polda Kepri in carrying out its duties is the Regulation Police no.14 year2018 about structure organization and order method performance in Regional police environment. The Perpol states that Satrbimob Regional Police Kepri has an ICT (Technology, Information and Communication) section where the ICT section only has 2 sub-sections, namely Subsisyankom and subsisikom. In these sub-sections, the use of UAVs is not involved in surveillance to assist police operations. carried out by Satbrimob itself, but tends to recording and photos to be published in the mass media to promote positive activities of the Satbrimob Polda Kepri personnel. Therefore, the author recommend to be able to revise and add 1 UAV organizational structure to PP no. 14 of 2018 and form a special UAV unit for the Riau Islands Police Mobile Brigade Corps.

Improving Drone Specifications from the Satbrimob Polda Kepri Reconnaissance Unit. So the researcher proposed that Satbrimob Polda Kepri equip its unit with Drones that have specifications tall For maximize utilization UAV mentioned, there are type UAV/ Drone Which proposed by researcher is as follows:

1. Penguin C type UAV. The Penguin C UAV is a long-range unmanned aircraft developed by the Latvian company, factory UAV. Type penguin C is type UAV Which has met FAA regulations and requirements for small UAVs under the 55-pound category. To date, the Penguin C is the best UAV in its class.
2. JOUAV CW-15 . JOUAV CW-15 This is UAV CW-15 The versatile vehicle is capable of carrying a variety of loads, making it suitable for a variety of tasks such as mapping, surveillance, public safety, oil and gas pipeline inspections, and more .
3. UAV THREOD EOS-MINI. A mini-UAV that brings tactical UAV capabilities to the mini-UAV level. EOS is a hand-launched, parachute-built electric mini-UAV designed to produce more stable and clear aerial imagery. EOS brings tactical UAV capabilities to the mini-UAV level. This UAV is capable of operating for a maximum of 2 hours and a range of up to 15 km.
4. Fulfillment of Personnel Needs in terms of quantity and quality.

To fulfill the need for personnel who have pilot or UAV operator certification is by:

1. The author proposes to fulfill the number of personnel that should be and in accordance with the DSP or the quantity stated in the police regulations which are the regulations regarding arrangement organization And order method Work unit police.
2. In addition to quantity, the Satrbimob Polda Kepri ICT personnel also still have shortcomings in terms of quality. The author suggests that Satbrimob Polda Kepri personnel learn how to do surveillance , reconnaissance, observation in air by using UAVs and learning from Squadron 52 Natuna as an organization within the Indonesian Air Force that has expertise in the UAV field.

### ***Development of Integrated Command Control Center***

In utilizing UAV and Drone technology to support regional police duties, a clear, modern and complete Control and Command room is needed, so that the UAV team of the Polda Satbrimob Riau Islands This can carry out task with effective And efficient. You can imagine if the UAV operator controls his UAV unit from a place that is not representative and comfortable and only relies on monitor from screen MOBILE PHONE ( Mobile Phone ) just. By Therefore, it is necessary to build a control room and command room. equipped with monitor as well as equipment Supporter others. In addition to being equipped with a monitor, this room is also used as a command room, a command room is very necessary because in this room there are not only personnel of the Kepri Police Mobile Brigade Corps who will work, but there are representatives from each sub-worker to control the performance so that the Kepri Police Mobile Brigade Corps personnel will be more professional and have integrity when carrying out their duties.

### ***Formulation of UAV Utilization Regulations at the Polda Kepri Level***

The Brimob Police Corps Headquarters already has an SOP on UAV flights and Drones , because the Brimob Police Corps Headquarters already has one sqa drone UAV in structure his organization. SOUP/ 66/V/2021/Korbrimob on Unmanned Aircraft Flight Operations (UAV) Korbrimob Polri is a legal umbrella for personnel of the Brimob Corps of the Police in carrying out activities as a UAV squadron. If in the future the Satbrimob Polda Kepri already has its own UAV squadron, then it is mandatory to formulate regulations that will serve as guidelines on how to act, how to communicate and coordinate both internally and externally. Including how to coordinate with Indonesian Armed Forces Air, in matter This is Squadron 52 in the district Natuna regarding flight permits, improvements UAV pilot and operator capacity including requests for personnel and equipment assistance.

## **CONCLUSIONS AND RECOMMENDATIONS**

This study examines how UAVs are utilized by the Satbrimob Polda Kepri in press crime transnational in border Indonesia-Malaysia. The author believes that by utilizing UAV technology to conduct air patrols in the Indonesia-Malaysia border area, it can reduce number crime transnational And condition security national the ideal can be realized. However, the obstacles faced in utilizing the UAV must first be overcome.

## **ADVANCED RESEARCH**

Further research on the use of UAVs (Unmanned Aerial Vehicles) by the Riau Islands Mobile Brigade Corps needs to be directed at optimizing the role of UAVs in detecting, monitoring, and preventing transnational crimes in the Indonesia-Malaysia border region, especially in vulnerable areas such as the Malacca Strait and the waters of Tanjung Balai Karimun. In-depth studies can be focused on improving the capabilities of UAVs in conducting aerial surveillance based on real-time video surveillance, thermal imaging, and automatic target recognition technology to detect drug smuggling, human trafficking, and illegal

border crossings. In addition, an analysis is needed on the integration of the UAV system with the command center and communication devices of the Mobile Brigade Unit and related agencies such as the Indonesian Navy, Bakamla, and Immigration to create an effective rapid response system. Future studies also need to examine competency-based UAV operator training as well as the logistics, maintenance, and storage needs of UAVs in border areas. Evaluation of the regulations on the use of UAVs by non-military units is also important to ensure that legal and human rights aspects are met. The results of this research are expected to be a strategic foothold in the formation of the operational concept of the UAV Satbrimobda Kepri to suppress the escalation of transnational crime and strengthen the national security system in border areas

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