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AIRPOWER AND MALAYSIA'S MARITIME ZONES: REALITY AND RHETORIC

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ABSTRACT

Airpower has been the "rising star" since the first World War due to military modernisation and competition in the aviation domain. Malaysia's ratification of 1982 United Nations Convention for the Law of the Sea (UNCLOS) and the Indo-Pacific mise en scene drive Malaysia to multiple maritime security concerns. Nevertheless, could Malaysia, being a maritime nation, be able to address these maritime-related security issues with airpower? This paper serves four purposes, including define airpower, analyse airpower in the Malaysian perspectives, address airpower in Malaysia's security complexity, and determining the maritime-related security concerns posed to the nation. This qualitative research explains the phenomena on Malaysia's application of airpower in securing the broad spectrum maritime borders. Major primary data is obtained from official documentation, in-depth interviews and participation observation. The role of the researcher is also crucial as a key instrument for the study. The study has found out that no doubt Malaysia is facing maritime security issues, particularly non-conventional in nature. In this pursuit, airpower is used as the potentially effective approach for policing Malaysia's maritime zones and sovereignty. The study suggests enhance application of airpower in Malaysia's defence and security cooperation with natural partners, such as Australia.

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1.0 Introduction

Airpower has rapidly becoming the vanguard of the military and commercial aviation progress. For the purpose of this paper, airpower for defence and security means only is applied. The advent of airpower as a prominent military instrument is drawn from the invention of hot air balloon by French Montgolfier brothers in 1783. Over time, dirigibles built by German Zeppelin who is referred to as Father of the Dirigible and airplane built by the American Wright brothers served as useful military instruments in the two world wars. With ever-evolving technological innovation in wake of the 4th Industrial Revolution (4IR), airpower is integrated with artificial intelligence (AI), robotic process automation (RPA), cloud computing technology, and virtual reality, and hence unmanned aerial system (UAS) is created. China, for instance, integrates AI technology in autonomous UAS is capable in denying US freedom of navigation in the South China Sea (Cung, 2018). UAS are incorporated not only in China, and also Malaysia's healthcare ecosystem in containing the recent Covid-19 pandemic threats for the purposes of aerial spray and disinfection, transport of samples, consumer drone delivery, as well as enforcement of quarantine (Yang & Reuter, 2020; Marr, 2020; Zolkepli, 2020). Likewise, the United States also develops AI technology for military and

intelligence purposes. These technological innovation without exceptional impact the conventional use of military and security realms in Malaysia. One of the areas is airpower.

Malaysia places the aerial domain as one of the top priorities, contiguous with the maritime domain (Sabu, 2018). Envisaging the emerging importance of airpower, former Malaysian Prime Minister Mahathir Mohamad (1991) in his speech stressed the special need to exhibit aircraft in light of the economic and geographic factors. Malaysia has achieved another “great milestone” when the first astronaut was sent into the International Space Station in October 2007 (Rakhmatullayev, 2007). The significance of the astronaut programme was to instil awareness among Malaysia of the importance of science, technology and the space industry. The growing importance also could be seen when former Defence Minister, Mohamad Sabu announced in 2019 to introduce Aircraft Technology as a new sector in 2021, in parallel with the existing maritime and aerospace sectors (Gilbert, 2019). Hence, the air domain is becoming a precondition for development of Malaysia’s economy interests as the nation is entering the 4IR era.

Airpower demonstrates a vital significance to Malaysia’s security architecture. In the context of military airpower, the use of aircraft for wars would continue play an importance role in the future development because aircraft are becoming more sophisticated and powerful, such as UAS (Mahathir, 2015). Malaysian Armed Forces (MAF) acknowledges the vital importance of air superiority that airspace command is the prerequisite for successful military operations employed in the spectrum of land, sea and air (Malaysian MinDef, 2010). The latest Defence White Paper mentions combination of air-maritime approach in protecting Malaysian strategic waters and airways (extended areas) and the proximity beyond Malaysia’s national borders (forward areas). In this pursuance, airpower is one the instruments that the MAF relied on (Malaysian MinDef, 2020).

In relation with airpower, defensive and offensive capabilities are essential to secure air superiority in order to defend Malaysia’s national interests. Air capabilities in military context are not only deployed by the Royal Malaysian Air Force (RMAF) to regulate the borders, but it is also mobilised by the Royal Malaysian Navy (RMN), and Malaysian Army against any encroachment into Malaysian maritime borders and land territories. Maritime surveillance is listed as the RMAF’s top procurement priorities in response to the “hotspots” at the South China Sea and the Straits of Malacca (Chuanren, 2019). The RMN is receiving 12 ScanEagle UAS from the US between November 2019 and 2022, and they would be sharing among the Malaysian enforcement agencies (Landau, 2019). The UAS would serve for maritime surveillance purposes under the Maritime Surveillance Initiative (MSI), which is fully sponsored by the US government. Malaysia needs the intelligence, surveillance and reconnaissance (ISR) capabilities to patrol wide strategic routes along the Straits of Malacca, South China Sea as well as Sulu Sea.

Airpower is often associated with the air forces of a state actor. Thus, the RMAF is the leading force preserve and defend Malaysia’s sovereignty, specifically, the airspace. It is in line with the “Air Power is National Power” theme (*Kuasa Udara, Kepentingan Nasional* in Malay Language) as former Prime Minister Mahathir and former Chief of Air Force have mentioned in interviews that “the first line of defence must be the Air Force” (RMAF, 2015; David, 2019). The sovereignty of Malaysia accommodates the territories of the land and territorial waters. Hence, it is necessary for Malaysia to protect and defend its national interests, which form the sovereignty, territorial integrity, independence, and economic prosperity, from emerging internal and external threats. Air capabilities are also optimised by other governmental security agencies which include Malaysia Maritime Enforcement Agency (MMEA) and the Royal Malaysia Police (Air Wing Unit). The Fire and Rescue Department of Malaysia, the federal fire and rescue services agency, with its Air Units deploy airpower in its search and rescue missions, aerial surveillance, as well as aerial command and control.

2.0 Literature Review

Conventional Security Concerns

Malaysia’s airpower over times is multi-facets and evolving in accordance with securitisation of conventional and non-conventional threats. Historically, airpower in the perspectives of Malaysia, was used to address imminent conventional security issues during World War II and overarching to the Cold War era. The roles played by airpower was limited to communication and support the land forces of the colonial power, the British and Australian (Yap, 1997). The conventional security threats were posed by the Japanese aggression in the Malayan Campaign (Ong, 2011; Grey, 2008; Katzenstein & Okawara, 2001/2),

the communist insurgency during the Malayan Emergency (Ondrék, 2018; Jackson, 2011; Yap, 1997), as well as the undeclared low-intensity war of Indonesia's Confrontation (Jackson, 2011; James & Sheil-Small, 1971). Malaysia had to form a military arrangement with the British and its alliance to ensure survival. It was Anglo-Malayan Defence Arrangement (AMDA). Further insecurity emerged in conjuncture with British's withdrawal from East of Suez and regional powers distribution, Malaysia left with no choice but had to depend on external security alliance. Hence, the Five Power Defence Arrangement (FPDA) was established initially to provide air defence protection for newly-formed Malaysia and Singapore (Storey et al., 2011; Ang, 2011; Bristow, 2005; Chin, 1991). With the formation of ASEAN and FPDA as the confidence building regimes, the conventional security issues have become less imminent.

Non-Conventional Security Concerns

The security threats posed to Malaysia in the post 9/11 era is considerable as non-traditional security threats or asymmetrical threats. Airpower too evolves in accordance with technological advancement as anticipated by 4IR. These security issues are transnational in nature and defy traditional perceptions on borders. Among the non-traditional security threats include terrorism, cyber security, transnational organised crime, human trafficking, smuggling, drug trafficking, illegal immigration, illegal fishing, and piracy. Securitisation of emerging non-traditional security threats focuses on air threats, cyber security, urban warfare (terrorism in urban area), and major power rivalry, South China Sea disputes, and incursions of Malaysian territory (Noor, 2019; Daniel, 2018; Hart, 2018; Paulsson, 2016; Bateman, 2011; Zaki, 2011). All these security concerns are closely related to maritime and air realms. This could be possibly addressed by using airpower.

Problem Statement

With Malaysia's ratification of the 1982 UNCLOS and heightening Indo-Pacific *mise en scene* in recent years have put the nation in a challenging position. By ratifying the Convention means Malaysia has the rights of exploration and exploitation of the offshore resources and govern the maritime waters in accordance with the international law. Further, the Indo-Pacific draws Malaysia as the lynchpin between the Indian and Pacific Ocean given its strategic geographical proximity in the Southeast Asia (Malaysia Defence White Paper, 2020). These two determinants not only lead leverages to Malaysia, and also ever comprehensive maritime security issues.

In pursuance of securitisation, contemporary airpower possibly is the critical element in addressing those wide spectrum of maritime security issues (Air Power Development Centre, 2020; Pietrucha, 2016; Grant, 2010), such as the Eyes in the Sky (EiS) maritime patrol framework in the Straits of Malacca. Nevertheless, much of the strategic analysis has largely focused on the maritime sphere. In contrast, the aerial domain either received minimal attention or mentioned in passing. Several questions on airpower have been left unanswered. Among others, how far would Malaysia endure the security challenges derived from the maritime sphere and the space above with its miniscule strength intricately interwoven with fiscal constraints?

3.0 Research Methodology

This study subscribes multiple qualitative research methods. Primary data is obtained from in-depth interviews, observation, documentary analysis, and researcher as the key instrument. Secondary data derived from printed and on-line academic resources.

In-depth interviews were conducted by interviewing 13 informants with related experience and background, from think-tanks, defence and security agencies. This study honours the privacy of the informants and hence their identities would be remained as anonymous. The format is semi-structured open-ended interviews. The informants are chosen from a small sample size based on purposive sampling methods. Snowball sampling technique was also used when the identified informants felt lack of knowledge, they recommended other informants with more experience. Probing technique was used to motivate the informants to reveal in-depth and new information. Interviews were conducted within the timeframe between 30 minutes to two hours, depending on the informants' convenience and openness to reveal the information. The interviews were recorded with a digital recorder prior permission granted. The interviews are transcribed into verbatim transcription for analysis. After open-coding process, the

transcriptions with codes were reverted to the informants for validation (member checking). *Nvivo Pro Version 12* was used for the purposes of coding and managing data.

Participant observation is conducted by joining a maritime surveillance operation over the Strait of Malacca at Malaysia-Indonesia maritime borders, as well as the coastal areas. The operation was carried out by deploying Agusta Westland AW139 Helicopter. The operation showcases how air assets are used in addressing maritime security concerns and gathering information. Documentary analysis is conducted with restricted and confidential doctrines and manuals. These are obtained from the Malaysian Army and RMAF with permission granted.

Defining Airpower

Airpower could be defined as the ability of a nation applied in the air to achieve particular strategic goals. Mitchell defines that airpower is the ability to do something in the air, which include transporting all sorts of things by aircraft from one place to another without barrier (Mitchell, 1921). Mitchell repeatedly highlights that, "Despite the natural defensive barrier formed between the Europe and Asia that stretches from the Atlantic Ocean to the Pacific Ocean, there is no place would be immune from aircraft as the whole world is aerially exposed" (Mitchell, 2009). Then, Mitchell added that, "But what, it may be asked, is air power? Air power is the ability to do something in or through the air. As the air covers the whole world, aircraft are able to go anywhere on the planet above mountains, deserts, oceans, rivers, forests, towns and cities" (Mitchell, 2009).

Seversky illustrates that airpower as the ability in generating armed power due to its highly effectiveness in terms of speed, range, mobility, accuracy, location and time (Meilinger, 1995). Nedialkov describes that airpower is "the air potential of a nation to utilise the airspace in the pursuit of the political, commercial, and military benefits" in order to defend its national interests (Nedialkov, 2004). The approach has to be accomplished in a rational manner. Gray also defines airpower as the ability to do something in the air, but he emphasizes the "strategical use" of airpower (Gray, 2012; Gray, 2015). It is enforced by the aircraft and a dedicated air force, regardless the types of services in the armed forces (Gray, 2015; Lambeth, 2018). In some cases, airpower is regarded as forms of land power or sea power which is employed in the sky (Gray, 2015). Armitage & Mason see airpower solely as a sub-set of combat power as they mention that it is "the ability to project military force by or from a platform in the third dimension above the surface of the earth" (Armitage & Mason, 1985).

In order to achieve the particular strategic goals, states employ air capabilities as an influential tool towards the other parties and their actions (UK Ministry of Defence, 2007). Oslen pinpoints that air power is the comprehensive use of air capabilities to influence the behaviour of actors and the course of events, particularly in the form of military operation. He mentions that, "Airpower is about aircraft, weapon systems, & bombing; training, education, values, rules of engagement, leadership, adaptability boldness in execution, and a range of other factors, tangible & non-tangible...that influence a military operation" (Oslen, 2018). Lambeth also portrays that combination of mechanism is used in airpower which exhibited the capabilities of a nation. He lengthily emphasizes that,

"Airpower is a complex amalgam of equipment and less tangible but equally important enabling ingredients bearing on its overall effectiveness, such as employment doctrine, concepts of operation, training and tactics, leadership quality, adaptability, operator proficiency, boldness in execution and practical combat experience" (Lambeth, 2018).

Airpower could involve the military and civilian component of aviation which is categorised in a nation's total aviation activity. This is highlighted by General Arnold, Commanding General of the United States Army Air Forces (USAAF), in 1945 that, airpower is "a nation's ability to deliver cargo, people, destructive missiles, and war making potential through the air to a destined destination to accomplish a desired purpose" (Emme, 1959). Airpower is a nation's preferable approach due to its far-reaching influence to which the world is unimpeded for aircraft because "air covers the whole world there is no place that is immune from influence by aircraft" (Mitchell, 1921). The use of the tool is a crucial element in order to obtain victory in battles due to "airpower is regarded merely as a tool for mastery, even after the advent of missiles" (Douhet, 1925). Airpower is used as a political subject in order to reach strategic objectives due to its practical implications (Gray, 2012). Hence, airpower is highly expected to become the tool in addressing national threats as "airpower has by no means become a tool offering an answer to every conceivable security challenge that might arise" (Lambeth, 2018). In short, airpower is always the

preferable mode of military operations because of its fundamental characteristics of mobility and flexibility that is unimpeded by any topographic barriers (Nedialkov, 2004; Gray, 2018; Lambeth, 2018; Meilinger, 2018.). This enables operations to be conducted rapidly over great distances of the aerospace to achieve desirable strategic effects.

Airpower: A Malaysian Perspective

Historically, airpower was applied in Malaysia's defence and security dimension for complementing the land and naval forces. The roles played by airpower is ever evolving in accordance with contemporary security environment and it is increasing important. In Malaysia, the RMAF is the major practitioner and provider of air defence for the nation. Malaysia's airpower is explained through the *RMAF Air Power Doctrine*. Informant MY-13 emphasizes that, "The Doctrine is the highest-level doctrine for RMAF. It is a restricted document...The doctrine comes under RMAF's jurisdiction where it is upgraded and published when necessary". In line with this, airpower is defined as "the ability to project military power in, through and from the air domain. The means of employing airpower shall include any system that can be used to wage war in the air. For example, manned and unmanned airborne platforms, guided missiles, balloons, or space vehicles" (RMAF). Technically, the air includes solely the entire expanse above the earth's surface towards the upper limit of the atmosphere (RMAF).

Airpower is the ability to deny the enemy from using the airspace by the enemy. Informant MY-10 explains that, "When you have the airpower, you can deny them to enter your airspace, you can impose restriction like 'no fly zone' because you have the capabilities". Air superiority is the prerequisite to be an airpower. Informant MY-10 again emphasizes that, "To be the airpower, you must have air superiority compare to your aggressor. That means the amount of your air assets outnumber the aggressor's or opponent's". The application of airpower depends on the means of the National Strategy and Defence Strategy, as well as the resources that Malaysia could afford, which is the defence budget. Informant MY-06 thinks that,

"The National Strategy has been detected. It is there, it is written. We have to be realistic about resources. It depends on how much we can afford. When we want to apply airpower in the Malaysia's context, it is related to resources which depends on the budget. The budget means what can we procure and how much can we maintain the assets".

Since the defence budget is limited, the application of airpower has to be assigned to the national priority. Defence is not a high priority for Malaysia (Informants MY-06; MY-10). It is seen in the defence spending which is as low as approximate one percent of Malaysia's gross domestic product (GDP). Informant MY-06 mentions that, "with limited budget that we have, then we talk about priority. Priority of which one you want to do first and which one you want to give higher priority". Limitation in defence resources would further "threaten the military ability to continue successfully performing a variety of missions that deter activities counter to national interests" (Md. Zaki, 2011). In regard with the Malaysian government's support on defence, Informant MY-10 describes that, "Defence is only one of the pillars. It is up to the government on how to support or defend the country. Unlike other countries, Malaysia is not doing pre-emptive strikes, but more on defending the country from the aggressor from outside. In the Army, it is termed 'detect, survive, strike and protraction' (DSSP)".

The propositions of airpower impact the conduct of air operations and the ability to obtain targeted results. It is the "exploitation of controlled flight by aerial platforms above the surface of the Earth" (RMAF). In this regard, Informant MY-06 emphasizes the primary elements of airpower include "speed, flexibility, and reach. Airpower is applied to cover more distance and area in a very short time because of the speed". Hence, Malaysia's airpower according to the RMAF, possesses primary attributes of "height, speed and reach". By height it means the

"Ability of airpower to operate over a spectrum of heights allows for observation and domination of activities on the surface and below the sea. Direct fire can be used against all of the enemy's forces whether or not they are in the front line and it permits manoeuvre in three dimensions rather than just two dimensions, an important factor in survivability".

With the speed possessed by airpower, it "allows rapid projection of military power. Greater speed allows missions to be accomplished quickly and a larger number of tasks be completed within a given period of time". By the reach it means that, "Airpower has the unrivalled reach or range which allows for projection

of military power over great distances in any direction. Reach is important not only for striking at distant targets and reaching isolated locations, but also for circumventing potential restrictions”.

Putting airpower in place

Malaysia did not possess any airpower until the formation of Royal Federation of Malaya Air Force (precursor of RMAF) in 1958. The function of airpower was limited to communication and support the ground forces in counter-insurgency operations during the Malayan Emergency. Over times, airpower is applied in accordance with security challenge requirements and it is not limited to the RMAF alone.

The use of airpower in the army’s perspective is however limited. It always should be referred to the RMAF due to its elements and organisation to control the airspace. First, air force possesses radar and sensors to monitor the whole of Malaysia’s airspace. Second, the use of airpower is limited because the army has no authority on control of space, particular the control of fire (Informant MY-09). The RMAF always has the control of fire, and the air defence commander must be the Chief of Air Force (Informant MY-09). It is not appropriate for the army to be considered to acquire airpower due to its air asset is small in size in this region which could not even reach air parity (Informant MY-10). In comparison with the armies of the neighbouring countries at the South who have attack helicopters, utility helicopter, and support or cargo helicopters, Malaysia possesses only helicopters which serve for reconnaissance purposes (Informant MY-10).

Helicopter is the major air asset for the army in supporting land forces. The air capability of the army allows tactical air support and combat support to be provided to the army and able to operate as combined arms team in any type of operations. Its air assets are of strategic importance for deploying reconnaissance and obtain critical information (Informant MY-10). There are three categories of helicopters in the army used for defending Malaysia’s airspace, including reconnaissance helicopters, utility helicopters, and attack helicopters. Each of them plays different roles. The reconnaissance regiment is doing ISR. The utility regiment is for transporting troops, bring logistics support to the people in ground, to move swiftly the Parachute Brigade and Rapid Action Force. Informant MY-10 re-emphasizes that, “with the utility asset, we can transport them instead of using the three-tonner to move to the location. With helicopters, we can bring them very fast. The attack helicopter is to attack and destroy, with capability of rocket and missile”.

Airpower could be incorporate with the artillery assets for air defence as it also plays important in defending Malaysian airspace. Air defence artillery of the army is responsible for protection of airspace and important ground installation. It is done by neutralising enemy attacks. Hence, short range air defence (SHORAD) capability or medium SHORAD could detect enemy aircraft earlier or destroy it before reaching Malaysia’s installation. The army is complemented with the artillery air defence assets in order to obtain that strength in the air (Informant MY-10).

In term of naval airpower, maritime-air integration is where airpower is applied to affect cause of event on the sea. Although RMN possesses helicopters which purely serve on air surveillance purposes and limited maritime strike capabilities, it would be limited due to the endurance and number of weapon (Informant MY-14). With the fighter aircraft, the RMAF could help in providing umbrella to RMN. The limitation in the navy assets be complemented with maritime patrol carried by the air force due its capabilities and endurance that able to cover large area in a short time. Whereas ships are not able to cover large area and relatively very slow (Informant MY-14).

Despite the fact that the MMEA does not possess any airpower, the air is utilised as force multiplier to cover large area in addressing maritime security issues (Informant MY-16). By using air assets, operations could be conducted more efficiently and effectively. By virtue, the plane view from above the air is three-dimension from every direction. Hence, air operations would be made more efficient. MMEA is keeping up to technological wave by deploying surveillance boats equipped with UAVs to police wider maritime areas (Bernama, 2018). This would protect the nation’s resources against illegal activities, for instance, encroachment and foreign fishing issues. The recent incident involved aerial maritime surveillance operations conducted by the RMAF, RMN and MMEA in intercepting a Rohingya boat from entering Malaysian waters shows an example of effective use of air-maritime approach (Bernama, 2020).

4.0 Airpower in addressing maritime security

The deployment of airpower is correlated to geographical proximity, particularly the maritime territories. Malaysia's maritime domain is three times larger than its landmass. It includes three important waters, include the Straits of Malacca, South China Sea and the Sulu Sea. There is a huge maritime gap separating the East and West regions of Malaysia where the closet distance is as wide as approximately 600 kilometres. The total of Malaysia's territorial waters is approximate 150,000 km² while the EEZ extends for another 450,000 km² (based on the 200 nautical miles or 312 km limit). In addition, there are about 1,007 islands housed within Malaysia coastal waters, to which 544 of them off Peninsular Malaysia waters, 397 of Sabah waters and 66 off Sarawak waters. Malaysia coastlines stretches as long as 4,809 km where it exhibits great socio-economic significance. Malaysia's territory is inclusive of the airspace above the land and maritime areas.

Malaysia's maritime zones have extended tremendously since signing and ratification of the 1982 UNCLOS as a new regime for maritime governance. Further to this, Malaysia's declaration of the 200 nautical miles exclusive economic zone (EEZ) in 1980 has become a significant watershed to push its airpower development to a new level (Yap, 1997). As the result, Malaysia's maritime territories has augmented approximately 160,000 square miles, covering two different parts of landmasses at the East and West Malaysia, and other remoted islands. This maritime space is rich in petroleum, natural gas, marine and mineral resources that have been the "lifeline" of the nation. The waters are also critical waterways for Malaysian seaborne trade as 95 percent of its exports go by sea through the South China Sea, Straits of Malacca, Celebes Sea, and Sulu Sea. None withstanding, the ocean is too broad and open. It would hence always vulnerable to relentless encroachment of different forms that posed possible security concerns to Malaysia. Protection of resources, as well as the sea lines of communication and the airspace above need necessary capabilities and enforce regulations. Besides naval capabilities, airpower is an essential element.

The dynamic Indo-Pacific theatre, in the same manner, impacts airpower in conjunction with increasing Malaysia's geopolitical significance in this region. The Indo-Pacific is a strategic theatre overarching from the Pacific Ocean to the Indian Ocean where the Quadrilateral Security Dialogue (QUAD) members impose strategic influences upon the smaller states in the regions. The QUAD alliance fundamentally involves the United States, Australia, Japan, and India, each of them possess own strategic agenda in economy and strategic contexts. This dynamic also brings security challenges to the nations within, especially Southeast Asia, due to its strategic "pivotal" location. The non-traditional security issues interwind with the rise of China, major power competition at the South China Sea, maritime territorial disputes, illegal fishing, smuggling, and maritime terrorism. These security threats are mobile and would travel from one country to another.

There is always no shortage of security threats in the maritime realm and the airspace above. Malaysia unavoidably has securitised these security issues because it is a maritime nation where the territorial waters is three times larger than its landmasses. In this relation, airpower is likely to be one of the most effective approaches in policing and monitoring Malaysia's waters due to attributes of airpower for coverage over broad aerial domain with time limited (Informants MY-06; MY-04; MY-10.). Therefore, airpower acts as a deterrence factor for resources protection, sea and air lanes of communication, as we as security and defence purposes.

i. Transborder crimes and sea robbery

Transborder crimes is one of the major maritime security which the Malaysia government is concerned about. Such crimes include illegal fishing, smuggling, illegal immigrants, and ship-to-ship transfer (STS) (Informants MY-13; MY-14; MY-16; MY-17.). Smuggling activities are associated with smuggling of people, smuggling of drugs, illegal contraband, and smuggling of household supplies. Daily household goods, such as instant noodles, cooking oil, formula milk, *halal* food, and gas cylinders, are smuggled out to other countries because the price is found to be relatively cheaper in Malaysia (Informant MY-16). Smuggling issues are going rampant at Sabah area. Smuggling of gas cylinders for instance. When gas cylinders are smuggled out of Tawau in a huge number, it would give negative economic impacts to the local community where there will be shortage of gas cylinders supply.

Sea robbery is another maritime security concern for Malaysia. Sea robbery takes place within Malaysian territorial waters, include the Straits of Malacca and South China Sea areas,

particularly at the waters off Terengganu, Pahang and Johor (Informants MY-14; MY-16). Malaysian waters and maritime borders are too broad, as aforementioned. It may not be under full coverage of the airpower and air capability available. Although parts of the waters are guarded, other areas would be encroached. With technological innovation, more advanced airpower element, such as UAS, could be used to deter and resolve this issue. The deployment of UAS could assist the enforcement and military vessels in carrying out maritime surveillance and ISR operations at the affected maritime areas (Informants MY-13; MY-14; & MY-17). In this pursuit, the author had an opportunity to witness a maritime surveillance conducted against illegal fishing issues.

ii. Incursions of territory

Incursions into Malaysia's territory via waterways and the airspace have been an intractable security concern. Incursions indeed posed serious threats to sovereignty, stability and prosperity of a nation. Such incidents involve the 2013 Lahad Datu crisis. The standoff occurred when a group of Southern Philippines armed non-state actor landed a village of the eastern Sabah and staked historical claim on the territory. The militants were the self-declared descendants of the Sulu sultanate and is reportedly connected to the Abu Sayyaf Group (ASG) regime who have been active in kidnap-for-ransom activities within Malaysian waters. In response, the Eastern Sabah Security Zone (ESSZone) was launched to better secure the area, where the main enforcement is under the authority of the Eastern Sabah Security Command (ESSCom). It has resulted tremendous upgrade of defence and security capability, such as increased of aircraft deployment in ESSZone. It involves aircrafts of the RMN and RMAF, such as RMN Fennec helicopter from KD Sri Semporna, Nuri helicopter from Tawau and Agusta helicopter from Army Aviation base in Sandakan, as well as a Hawk and B200T aircraft from the RMAF Labuan air base (Lim, 2019; Sabu, 2019).

In the relation with the use of airpower in addressing intrusion concerns, RMAF could have a great impact over an identified warzone. The impact of airpower was significant during the standoff where the village was declared as a warzone where curfew was imposed and out of bounds (Informant MY-04). RMAF isolated the area and civilians were evacuated before launching air strikes, such as bombings and shooting rockets". In this case, Malaysian security forces launched an offensive against the armed intruders in Kampung Tanduo of Lahad Datu on 5 March 2013. It started with aerial attacks where the RMAF F/A-18 and Hawk fighter aircraft were used deployed. Then, it was followed by the firing of mortar and a ground assault by the Army.

The presence of the Army in Lahad Datu shows that air capability is crucial for defending the airspace. The purpose of stationing air assets is to show its presence and to detect any intrusion from the other side which is an ISR mission (Informant MY-10). Air assets were deployed to provide the information on the attackers' position. The Army is able to gather the information as soon as the enemy is traced in the sky and the intelligence would be sent to the ground troop to the pursuit spontaneously (Informant MY-10). Since then, the Army continues its presence in Eastern Sabah. The Army air assets are deployed for guarding the coastal area throughout the missions. In this case, the Army air assets serve the purpose as a deterrence factor. It is not a swallow task for the intruders because the Army has the air assets which allows deterrence of any intrusion (Informant MY-10). Encroachments into Malaysia maritime and aerial territories are also carried out by state actors in this sense whom possess stronger military capabilities. One such security concerns posed would be the intensifying crisis at the South China Sea at present.

iii. The South China Sea flashpoint

Competition pursued among the superpowers, particularly the US and China, at the South China Sea is another significant security concern posed for Malaysia (Informants MY-04; MY-14; MY-17). China's aggressiveness at the contested South China Sea in recent years has presented regional geopolitical tensions. Based on the controversial "nine-dash line" territorial claim, China has repeatedly asserted its sovereignty of the sea despite overlapping demarcations made by other regional nations, including Malaysia. China also has accelerated building of artificial islands and a heavy military presence at the world's strategic waterway since 2014. The international community again criticised when it was "business as usual" for China's persistence on establishing new administrative districts for the contested Spratly and Paracel island chains, as well as naming the islands in the midst of the Covid-19 pandemic outbreak (AFP, 2020). The US in responding the China's assertiveness, has imposed a pivotal policy towards the Asia-Pacific and later evolved into

the Indo-Pacific strategy with its close allies – Australia, Japan, and India. In this sense, the US and alliance advocate the “freedom of navigation” in accordance with “rules-based order” to be exercised at the waterways and airspace which are controlled by China at the South China Sea.

To certain extent, Malaysia is agitated with China’s appearance at the South China Sea. Among others is the presence of China’s coast guard and militia vessels at the Luconia Shoals (*Beting Patinggi Ali* in Malaysian Language). It is well located within Malaysia’s EEZ and the overlapping claim territorial waters. Several incidents have been reported by media, for instance, approximate 100 China-registered vessels encroached Malaysian waters in 2016 (Parameswaran, 2016) and the most recent report involves a Chinese ship tagging a Malaysian vessel at the disputed waters (Reuters, 2020). Malaysian government generally responds either with diplomatic protest or remains silence. Former foreign minister of the *Pakatan Harapan* government Saifuddin Abdullah hence expressed Malaysia’s determination and the needs to upgrade military strength in order to prevent future encroachment and possible armed conflicts (Sukumaran, 2019).

Airpower, in this sense, could be brought into play in addressing the security concern. The critical roles played by airpower could be complementary to naval power. It could be applied to other services and security forces where air capabilities, including UAS and other aerial elements, are integrated with maritime domain to create strategic effects. Airpower creates deterrence factor to ameliorate the security challenges. It is also essential to act as the “fence panels” that ensures the air and sea lines of communication over the “hotspot”. Aerial and naval military exercises and maritime surveillance operations serves these purposes well. Among others, Malaysia’s defence and security agencies conduct patrols and surveillance at a regular basis at the contentious South China Sea in order to deter potential encroachment. The attributes of airpower on flexibility, speed and reach enable coverage of larger maritime proximity and swiftly take actions in time of possible confrontation.

These security concerns are fluidic and migrate from a nation to another in such broad maritime sphere if not properly managed. This phenomenon on securitisation of threats is well-explained by Buzan and Wæver (2003) in their prestige grand theory, Regional Security Complex Theory (RSCT). Regional security complex is “a set of units whose major processes of securitization, desecuritization or both are so interlinked” (Buzan & Wæver, 2003). In this dimension, security is “a relational phenomenon that one cannot understand the national security of any given state without understanding the international pattern of security interdependence in which it is embedded” (Buzan, 1981; Buzan & Wæver, 2003; *see also* Buzan, Wæver & Wilde, 1998). There are five clusters of security involved: military, political, economic, society, and environmental. Among all, military threats have been the most significant impacts on influencing other components of states. In this sense, Malaysia has securitised several critical non-conventional security issues, among them include transborder crimes and sea robbery, incursions of territory, and superpowers competition at the South China Sea which would be possibly deterred by deploying airpower over the maritime domain. By containing these threats means protecting Malaysia’s national interests due to its status as a maritime nation. In this respect, the most crucial national interest is the economy, such as oil and gas industry, sea lines of communication for trading and shipping, as well as fishery, which generate tremendous revenue for Malaysia.

Notwithstanding, implementation of airpower could be limited too with budgetary resources constraints that Malaysia is facing. At the bilateral level, the possible alternative to deal with this shortcoming would be collaborating with Malaysia’s natural partners, Australia, who has advanced technological airpower and the necessary skills, as well as both nations share the common interests and security concerns in this region. The long-standing bilateral relations between the two nations is a pull factor as well. The form of defence and security cooperation could be incorporated cross-services in nature (Informant AU-11). Such close cooperation includes Operation Gateway and Operation Redback where security forces from both nations engaged in addressing maritime security issues.

The shared security interests which drawn both nations together include shared historical connections, reciprocal engagements, perceptions on threats, strategic culture, geo-strategic factors, economic and political drivers, as well as the Indo-Pacific security. Among these drivers, the heightened Indo-Pacific security serves as the most significant determinant for enhancing the already mature Malaysia-Australia defence and security collaboration. The centre of gravity of the Indo-Pacific theatre is the superpowers competition and collaboration in the Southeast Asian region where the South China Sea is turned to be the battle ground. At the regional level, Malaysia would be indirectly benefited from Australia’s

close alliances, as such the QUAD members in the form of “big brothers’ security protection” (Informant AU-12). Often times it is conducted in such a low-key manner. In pursuance of foreign policy posture, Malaysia maintains neutral and equidistant from these nations to prevent Malaysia from falling into such competition. The geo-strategic importance of Malaysia as a forward base is of great significance for Australia to gain access to the Indo-Pacific region, whether or not realised by other parties (Informants MY-06; AU-11). In this standing, Malaysia’s new National Alliance government could hence evolve coherent domestic and regional strategies in addressing the security issues, particularly China’s aggressiveness in the South China Sea.

5.0 Conclusion

Airpower is gaining importance in light with Malaysia’s ratification of UNCLOS and the heightened Indo-Pacific *mise en scene* due to its strategical location in the Southeast Asia region. These two determinants have significant impacts on Malaysian territorial waters which means the nation needs to cope up with both the existing and emerging security threats, particularly the non-conventional dimension that are increasing complexity in nature. However, addressing these security concerns has become increasing challenging due to intricately interwoven with its porous border and fiscal constraints, defence and foreign policies. Within this context, Malaysia could further extend regional security cooperation with Australia where both nation share common interests in the aerial domain. The Indo-Pacific theatre opens multiple possibilities for Malaysia to defining its airpower in securitising the maritime-related threats.

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References

- AFP (2020). Outrage as Beijing names islands in disputed South China Sea. *New Straits Times*, retrieved from www.nst.com.my.
- Air Power Development Centre. (2020). Air Power and Maritime Operations Part I: A Historical Perspective. *Pathfinder*, Issue 346, retrieved from <http://airpower.airforce.gov.au>.
- Ang, C. G. (2011). Malaysia, Singapore, and the Road to the Five Power Defence Arrangements (FPDA), July 1970–November 1971. *War and Society*, 30(3), p. 207–225.
- Armitage, M. J., & Mason, R. A. (1985). *Air Power in the Nuclear Age, 1945–84: Theory and Practice*. UK: Palgrave Macmillan.
- Bateman, S. (2011). Solving the “Wicked Problems” of Maritime Security: Are Regional Forums up to the Task? *Contemporary Southeast Asia*, 33(1), p. 1–28.
- Bernama (2018). MMEA wants a mothership to strengthen enforcement. *Daily Express*, retrieved from www.dailyexpress.com.my.
- Bernama (2020). Royal Malaysian Air Force foils bid by 200 Rohingya in boat to enter Malaysia. *Malay Mail*, retrieved from www.malaymail.com.
- Bristow, D. (2005). The Five Power Defence Arrangements: Southeast Asia’s Unknown Regional Security Organisation. *Contemporary Southeast Asia*, 27(1), p.1–20.
- Buzan, B. (1981). *People, States and Fear: An Agenda for International Security Studies in the Post-Cold War Era*. Hertfordshire: Harvester Wheatsheaf.
- Buzan, B., & Wæver, O. (2003). *Regions and Powers: The Structure of International Security*. New York: Cambridge University Press.

- Buzan, B., Wæver, O., & Wilde, J. D. (1998). *Security: A New Framework for Analysis*. London: Lynne Rienner Publishers.
- Cung, V. (2018). Security aspects of Fourth Industrial Revolution. *New Straits Times*, retrieved from www.nst.com.my.
- Chuanren, C. (2019). LIMA 2019: Malaysia Evaluates MPAs. *Aviation International News Online*, retrieved from www.ainonline.com.
- Chin, K. W. (1991). The Five Power Defence Arrangements: Twenty Years After. *The Pacific Review*, 4(3), p.193–203.
- Daniel, T. (2018). Issues Impacting Malaysia's Maritime Security Policies and Postures. *Institute of Strategic and International Studies (ISIS) Malaysia*, retrieved from www.isis.org.my.
- David, A. (2019). RMAF is First Line of Defence, Says Chief. *New Straits Times*, retrieved from www.nst.com.my.
- Douhet, G. (1925). *The Command of the Air*. Translated by Dino Ferrari (1988) [*il comando dell'aria*]. Washington: Air Force History and Museums Programme.
- Emme, E. (Ed.) (1959). *The Impact of Air Power: National Security and World Politics*. New York: Van Nostrand.
- Gilbert, J. (2019). Promise of Bigger LIMA in 'Two Years' Time. *New Straits Times*, retrieved from www.nst.com.my.
- Gray, C. S. (2012). *Airpower for Strategic Effect*. Alabama: Air University Press.
- Gray, C. S. (2015). Airpower Theory. In J. A. Olsen (Ed.). *Airpower Reborn: The Strategic Concepts of John Warden and John Boyd*. Maryland: Naval Institute Press.
- Gray, C. S. (2018). Airpower Theory. In J. A. Oslen (Ed.). *Routledge Handbook of Air Power*. Oxon: Routledge, p. 156–180.
- Grant, R. (2010). Airpower over Water. *Air Force Magazine*, retrieved from www.airforcemag.com.
- Grey, J. (2008). *A Military History of Australia (3rd ed.)*. Victoria: Cambridge University Press.
- Hart, M. (2018). Eastern Sabah: Malaysia's Frontline Against Militancy. *The Diplomat*, retrieved from thediplomat.com.
- Informant MY-04 (2019, August 2). Personal interview.
- Informant MY-09 (2019, September 25). Personal interview.
- Informant MY-10. (2019, September 25). Personal interview.
- Informant AU-11. (2019, October 22). Personal interview.
- Informant AU-12. (2019, October 5). Personal interview.
- Informant MY-13 (2019, September 13). Personal interview.
- Informant MY-14 (2019, October 17). Personal interview.
- Informant MY-06. (2019, November 5). Personal interview.
- Informant MY-16 (2019, December 4). Personal interview.
- Informant MY-17 (2019, December 4). Personal interview.
- Jackson, R. (2011). *The Malayan Emergency and Indonesian Confrontation: The Commonwealth's War, 1948–66*. United Kingdom: Routledge.
- James, H., & Sheil-Small, D. (1971). *The Undeclared War: The Story of the Indonesian Confrontation 1962-1966*. London: Leo Cooper Ltd.
- Katzenstein, P., & Okawara, N. (2001/2002) Japan, Asia Pacific Security, and the Case for Analytical Eclecticism. *International Security*, 26(3), p.166.
- Lambeth, B. S. (2018). Air Power Anatomy. In J. A. Oslen (Ed.). *Routledge Handbook of Air Power*. Oxon: Routledge, pp.13–23.

- Landau, E. (2019). US gives 12 maritime surveillance drones to Royal Malaysian Navy. *New Straits Times*, retrieved from www.nst.com.my.
- Lim, A. (2019). ESSCom beefs up security level with deployment of more aircrafts. *The Borneo Post*, retrieved from www.theborneopost.com.
- Mahathir, M. (2015). Exclusive Interview with Hon. Tun Dr Mahathir Mohammad, at Perdana Leadership Foundation, Putrajaya, 16 February 2015. In *RMAF, Reshaping the Air Power RMAF Participation in LIMA 1991–2015*. Kuala Lumpur: Royal Malaysian Air Force.
- Mahathir, M. (1991). *Speech delivered during The First Langkawi International Maritime and Aerospace Exhibition (LIMA) 1991*. Prime Minister's Office of Malaysia, retrieved from www.pmo.gov.my.
- Malaysian Ministry of Defence (2010). *Malaysia National Defence Policy*, p. 27. Prime Minister's Office, retrieved from www.pmo.gov.my
- Malaysian Ministry of Defence (2020). *Defence White Paper: A secure, sovereign and prosperous Malaysia*. Kuala Lumpur: Percetakan Nasional Malaysia.
- Marr, B. (2020). Robots and drones are now used to fight COVID-19. *Forbes*, retrieved from www.forbes.com.
- Md. Zaki, Z. (2011). *Identification of Royal Malaysian Air Force Technology Needs as A Credible Air Power* (Unpublished doctoral dissertation, Universiti Teknologi Malaysia). Thesis requested from the author.
- Meilinger, P. S. (1995). Proselytiser and Prophet: Alexander P. de Seversky and American Airpower. In J. Gooch (Ed.). *Airpower: Theory and Practice*. London: Frank Cass & Co. Ltd.
- Mitchell, W. (2009). *Winged Defense: The Development and Possibilities of Modern Air Power–Economic and Military*. Alabama: The University of Alabama Press.
- Mitchell, W. L. (1921). *Our Air Force: The Keystone of National Defence*. New York: E. P. Dutton.
- Nedialkov, D. (2004). *The Genesis of Air Power*. Sofia: Pensoft Publishers.
- Noor, E. (2019, November). *Foreign and security policy in the New Malaysia*. Sydney: Lowvy Institute.
- Ondrék, J. (2018). Australian Involvement in the Malayan Emergency. *Academic and Applied Research in Military*, 17(2), p. 61–76.
- Ong, C. C. (2011). *Operation Matador: World War II Britain's Attempt to Foil the Japanese Invasion of Malaya and Singapore*. Singapore: Marshall Cavendish International.
- Oslen, J. A. (Ed.) (2018). *Routledge Handbook of Air Power*. Oxon: Routledge.
- Parameswaran, P. (2016). Around 100 China Ships Encroaching Malaysia's Waters: Minister. *The Diplomat*, retrieved from thediplomat.com.
- Paulsson, H. (2016). Air power in the South China Sea: Vietnam, Malaysia and the Philippines. *The Interpreter*, retrieved from www.lowyinstitute.org.
- Pietrucha, M. (2016). Fighting the Middle Kingdom in the Maritime Domain. *The Diplomat*, retrieved from <https://thediplomat.com>.
- Rakhmatullayev, S. (2007). Malaysia's first astronaut relishes "giant leap". *Reuters*, retrieved from www.reuters.com.
- Reuters (2020). Chinese ship tagging Malaysian vessel in S. China Sea: Sources. *The Straits Times*, retrieved from www.straitstimes.com.
- RMAF (2015). *Reshaping the Air Power: RMAF Participation in LIMA 1991–2015*. Kuala Lumpur: Royal Malaysian Air Force.
- RMAF Air Power Doctrine*, 4th Edition.
- Sabu, M. (2019). MinDef committed to Sabah, Sarawak security: Mat Sabu. *The Daily Express*, retrieved from www.dailyexpress.com.my.
- Sabu, M. (2018). Ministry of Defence and Ministry of Transport with One Mission at LIMA'19. *LIMA News*, retrieved from www.limaexhibition.com.

- Storey, I., Emmers, R. & Singh, D. (Eds.) (2011). *Five Power Defence Arrangements at Forty*. Singapore: Institute of Southeast Asian Studies.
- Sukumaran, T. (2019, October 17). Malaysia must prepare navy for possible conflict in South China Sea, foreign minister warns. *South China Morning Post*, retrieved from www.scmp.com.
- UK Ministry of Defence (2007). *Joint Doctrine Publication 0-30: UK Air and Space Power (2nd ed.)*. UK: Development, Concepts and Doctrine Centre.
- Yap, P. C. (1997). *Air Power Development: The Royal Malaysian Air Force Experience*. Canberra: Air Power Studies Centre.
- Yang, J. W. & Reuter, T. (2020). 3 ways China is using drones to fight coronavirus. *World Economic Forum*, retrieved from www.weforum.org.
- Zaki, M. (2011). *International legal and normative framework for responsible fisheries, with reference to Malaysia's offshore EEZ fisheries management* (Unpublished doctoral dissertation, University of Wollongong).
- Zolkepli, F. (2020). Drones to be used at 12 hotspots during MCO, says Armed Forces chief. *The Star*, retrieved from www.thestar.com.my.