

The Development of Royal  
Cambodian Air Force  
After 1979  
To 2016

By

Brigadier General YEM BUN RETH  
Royal Cambodian Air Force

Student of The National Defence College  
The National Defence Course: Class 59  
Academic Year 2016-2017

## **PREFACE**

A nation even if it is rich in natural resources cannot progress without capable manpower. A manpower factor is one of the most crucial elements for keeping all the sectors active and smooth as it requires. Learning is to stimulate ideas and opinions in each person to understand well about required activities for livelihood and development in human society. The sustainable development of a nation requires everyone in the society to acquire sufficient and appropriate knowledge based on its situation.

The study at a National Defense College is aimed at exploring national strategies and it is a pride of all students who are studying or graduated, with their awareness of the progress in ideas and intellect to take charge of their professions in compliance with the laws of their country which is being currently developed. The national defense strategies are precious resources for contributing actively to building a country in a current stage towards the progress as a nation for being linked to the developed world.

As a 59<sup>th</sup> batch student studying at the National Defense College, I am very proud of gaining profound knowledge from professors, which further enables me to contribute to the development of my country towards the progress in the ASEAN community. The national defense strategy is comprehensive, flexible and active and encompasses many key strategies such as military strategy, etc.

The military strategy is made of theories and ideas of national defense. The biggest theory depends on the ideas of national key strategies,

situations and purposes as stated therein. It refers to the requirements, purposes and situations which have impact on the national security and military fighting in a given period of time. It is aimed at division based on the impact of global and local security status. The military strategies of each country established are aimed at deploying armed forces along the borders – land, water and air. This is the influence of overall strategic concepts and national defense purposes. This military strategy will vary according to the development of concepts, national defense purposes of a particular country.

(Brig. General YEM BUN RETH)

Royal Cambodian Air Force

Student of National Defence College.

Course: NDC Class: 59

Researcher

## CONTENTS

	<b>Page</b>
<b>Abstract</b>	<b>i</b>
<b>Preface</b>	<b>iii</b>
<b>Acknowledgement</b>	<b>v</b>
<b>Contents</b>	<b>vi</b>
<b>Contents of Figure</b>	<b>ix</b>
<b>Chapter 1      Introduction</b>	<b>1</b>
Background and Problem	1
Objectives of the Research	9
Scope of the Research	10
Methodology	10
Delimitation	11
Expected Research Result for utilization	11
<b>Chapter 2      Literature Review</b>	<b>12</b>
1. Background	12
2. To build the RCAF	14

## **CONTENTS (cont.)**

	<b>Page</b>
3. How Human Resource selected from the 1 <sup>st</sup> step of period of the government.	16
4. Training	19
4.1. The Foundation Training	19
4.2. Training Skill	20
5. Organization Structure	22
6. Equipment, Air Craft, Helicopters	27
7. Tenet of Development Ability of Air Force	41
8. Resource Implicate	43
<b>Chapter 3      Literature Review</b>	<b>46</b>
<b>1. Historical of RCAF</b>	
I would like to provide the information to who had never know about what has happened event in the Royal Cambodian Air Force of the worse history and find the way to prevent and protect it in a good shape, and understanding the real problem of RCAF today.	46
2. Cambodia Hosts 12th ASEAN Air Chiefs Conference on Cooperation and Coordination to Maintain Regional Stability	60
3. To evaluate the situation of operating flight without full equipment belongs to the Air Force.	68

## CONTENTS (cont.)

	<b>Page</b>
<p><b>Chapter 4    The Way how to rebuilding the new generation of Royal Cambodian Air Force after Khmer Rouge Regime fall down until now on for stable Kingdom of Cambodia</b></p>	<b>70</b>
<p>1. The Way how to rebuilding the new generation of Royal Cambodian Air Force after Khmer Rouge Regime fall down until now on for stable Kingdom of Cambodia.</p>	70
<p>2. To Prepare and Readiness Royal Cambodian Air Force to participate for HADR among ASEAN Air Force.</p>	73
<p><b>Chapter 5        Conclusion and Recommendation</b></p>	<b>75</b>
<p>Recommendation</p>	75
<p>Conclusion</p>	76
<p><b>Bibliography</b></p>	<b>78</b>
<p><b>Appendix</b></p>	<b>79</b>
<p><b>Biography</b></p>	<b>101</b>

## CONTENTS OF FIGURE

<b>Figure No.</b>		<b>Page</b>
2-1	Organization Structure	23
2-2	Organization Structure	24
2-3	MiG-21bis	32
2-4	An-24RV	33
2-5	L-39C	34
2-6	Mi-8	35
2-7	Mi-17	36
2-8	Mil Mi-26T	37
2-9	P-92 Echo, Y-12	38
2-10	MA-60, Zhi-9 (Z-9)	39
2-11	Zhi-9 (Z-9)	40
3-1	12th ASEAN Air Chiefs Conference	61
3-2	12th ASEAN Air Chiefs Conference	62

# **CHAPTER 1**

## **INTRODUCTION**

### **Background and Problem**

The Royal Cambodian Air Force was established, with French support, on 01 April 1954, shortly after Cambodia gained independence on 9 November 1953. Royal Khmer Aviation received aid from various sources and thus its composition was somewhat varied. Prior to the overthrow of Prince Sihanouk in 1970 the Khmer Air Force (KAF) was aptly described as the Phnom Penh Royal Flying Club. It possessed a few Mig fighters and a varied assortment of other aircraft of all types and origins.

The mission of the air force was primarily the air defense of the country, but it was also responsible for providing air transport and tactical support to the army. The air force also had the additional responsibility of participating in civic action and providing a pool of pilots for civil aviation.

The pilots were drawn from the extensive branches of the royal family, the lesser nobility, and the wealthier families. Command of the air force was a political plum and was rewarded based upon personal loyalty. Inefficiency was tolerated, both because the air force lacked a real mission, and because an efficient air force could pose a threat to the palace.

In late 1967 the Royal Cambodian Air Force, with around 2,000 men, was one of the smallest in Southeast Asia. It had about 100 aircraft,



which included several jet fighters and light bombers. Designed primarily to support the ground forces, it was used mostly to provide aerial resupply, paradrops and the transport of personnel. The operational elements formed a composite squadron, although they were organizationally divided into separate operational and technical groups. Aircraft in operational units in 1967 included MIG-17 jet fighters, A-1 Skyraider light bombers (French) and T-28 Trojan ground attack aircraft. There were also a number of jet trainers, 12 C-47 transports and other miscellaneous transports, including several helicopters.

The air force had its main storage and issue point at Phnom Penh, which handled virtually all aircraft maintenance and had four well-equipped hangars where most of this work could be performed. Most of the maintenance, excluding major overhauls that were performed outside of the country, was supervised by French advisory personnel.

In 1970 Lon Nol announced that "democracy was no longer appropriate for Cambodia" and began shortly after the coup to rule by decree. His brother Lon Non "employed assassination, bribery and slander to eliminate almost all capable leaders from the government." Though Lon Nol held elections in 1972, the vote was rigged [after a Cambodian Air Force pilot stole a plane and bombed Lon Nol's residence in 1973, Lon Nol responded by suspending civil rights].

Following the Lon Nol coup of 18 March 1970, the Khmer Air Force, unlike its sister services, was not called upon to play a decisive role in the unfolding battle for control of Cambodia. Air power, when and where needed, was provided by the US Air Force. The KAF underwent some expansion, particularly in the development of a basic inventory of

common type aircraft, its overall development as a self sufficient military organization was not fully addressed. From the US mission viewpoint, time and cost factors were prohibitive. US airpower was more than adequate. In addition, the new Khmer government, like the old, viewed airpower as a potential direct threat to the head of state and treated any proposed reorganization of KAF and its command structure accordingly. KAF, to a greater degree than either of her sister services, thus consistently suffered from inept leadership.

By 1970 a fighter force of MiG-15s and MiG-17s was established in two squadrons and this was supplemented by a ground-attack force of 20 Douglas A-1D Skyraiders and the same number of North American T-28Ds. A total transport force of about 25 aircraft consisted of a dozen C-47s together with Flamants, An-2s, Beavers and Il-14s. The backbone of the helicopter fleet was ten Alouette-1s.

The goals and objectives of US economic and military assistance programs in Cambodia were related to the military effort in Indochina. In 1969 consideration was given by the US government to granting \$3.5 million to get the Khmer Air Force about 190 T-28s. In 1970 the United States agreed to provide emergency support. In formulating the 1970 Military Assistance Program, the US Secretary of Defense issued guidelines for developing a crash program within authorized dollar limits. For the Cambodian Air Force, only T-28 aircraft would be supported [and naval support would be limited to small patrol craft].

The Communist's first rocket attack on Phnom Penh was spectacular, destroying on January 23, 1971 almost all of the T-28 fighter

aircraft the US had supplied the fledgling Khmer air force. In December 1971, US Army Vietnam [USARV] received 51 Free World Military Force personnel for training as crewmembers for UH-1 gunships. A mobile training assistance team was provided from Fort Rucker. In March 1972, 60 Khmer Air Force enlisted personnel received two weeks of UH-1 maintenance and door under training taught by Cambodian interpreters under supervision of French speaking US instructors. Other smaller groups received similar training in flight and maintenance skills.

In February 1972 KAF consisted of 72 aircraft, only 19 having firepower capabilities. It possessed one squadron of prop driven fighter-bombers, one squadron of jet power transport helicopters on loan from MACV resources, and assorted transport aircraft. Total personnel, including trainees, numbered only 3,853 men to support a headquarters, one operating base, and some forward operating detachments at civilian airports. Less than 100 active pilots were filling operational assignments.

Heavy maintenance was accomplished out of country, restricting the number of sorties available for combat missions. Qualified maintenance personnel were few and had been educated by the former French Military mission. They did not possess the required proficiency level in English necessary to learn the maintenance procedures for the US aircraft then coming into the KAF inventory. In addition, neither adequate maintenance facilities or a functioning supply system existed.

The original premise in the equipping of the Khmer Air Force was to provide it with the simplest, easiest to fly and maintain aircraft that could accomplish its missions of close air support for ground and naval forces and limited air transport. Accordingly, the T-28 was furnished as

the basic fighter-bomber, the C-47 and AC-47 as the basic cargo aircraft and fixed wing gunship, and the FAC aircraft. Transport helicopters were included in the inventory with helicopter gunships arriving in March 1973. Because of their availability, other aircraft were added from time to time. A squadron of AU-24's were added when they were declared excess to U.S. needs during the phase down of the US Vietnam involvement.

In mid-1973, while pulling American combat forces out of Vietnam, US authorities launched their final strategy in Southeast Asia — hold the line in Laos and Cambodia until Army of the Republic of Vietnam forces, using massive amounts of US-provided military hardware, could defeat the North Vietnamese Army in the South. This strategy depended on the Khmer Republic not losing to communist forces, an outcome requiring timely US assistance.

In July 1973 the Congress terminated US air combat operations over Cambodia as of 15 August 1973. KAF expansion and development as an effective force prior 15 August 1973 was hampered. Reasons were the reliance on US close air support thus making a truly efficient KAF unnecessary a shortage of skilled pilots and trained support personnel; lack of adequate airfields; a lack of effective leadership which was exacerbated by frequent changes in key personnel and KAF failure to organize itself. Training programs were established in the Khmer Republic, Thailand, and the US to train pilots and other personnel. An airfield construction program was launched to upgrade the airfields at Pochentong, Battambang, and Ream. The C-123 aircraft was introduced to increase the airlift capability and to add the ability to conduct airdrops as well.

It was evident however that KAF was still a very poor substitute for US combat air support. Steps were taken at several levels to improve KAF's capabilities. The assumption of command of KAF by BG Ea Chhong in November 1973 saw the varying efforts at improvement of KAF begin to bear fruit and created a fertile ground for further improvement. The sortie rates of T-28 aircraft, in particular, increased markedly. There was much greater cooperation and coordination between air/ground and naval forces. This can be attributed to the improvement in leadership brought by the new commander.

The Khmer Republic's army fought hard, but lacked weapons and supplies. They also lacked air support and it became clear to anyone with experience in Southeast Asia that holding off the Khmer Rouge would take more than artillery-backed infantry employing conventional fire-and-maneuver tactics. The Khmer Republic's army needed aggressive air support: air interdiction to degrade enemy logistics, close air support to help defeat Khmer Rouge in contact, and air mobility to give Khmer Republic surface forces an edge in logistics and battlefield maneuver.

The Pentagon's Defense Security Assistance Agency proposed rebuilding the KAF. An Air Force assessment team entered Cambodia in October 1973 to determine the KAF's ability to absorb greatly accelerated deliveries of US defense articles and services. Their findings and recommendations, titled the Tactical Air Improvement Plan (TAIP): Cambodia, were favorably reviewed by President Nixon and National Security Advisor Henry Kissinger. They decided to initiate a security assistance surge operation early in 1974.

<b>As of February 1974</b>	
T-28B/D	63
O-IA/D	35
C-47	13
AC-47	11
C-123	8
UH-1H	34
UH-1H(G)	10
AU-24	14
Personnel	9,684
pilots	298

The KAF received one squadron of AT-28 attack aircraft, one squadron of C-123 transports, one squadron of AC-47 gunships, one squadron of O-1D forward air control aircraft, and one squadron of AU-24 Helio Stallion light armed utility short takeoff and land aircraft. The surge included all support items and services including training, fuel, munitions, aircraft spare parts, and the complete refurbishment of a squadron of UH-1H helicopters.

KAF combat aircrews successfully employed their newly acquired aircraft with great effect throughout the range of assigned airpower tasks and missions. But air support for FANK units remained limited. Although the Cambodian Air Force nearly doubled its strike sortie rate between July and September 1974, total air support - with the cessation of US operations - had been cut by about 80 percent. Moreover, mechanisms for coordinating air and ground operations had only recently been established, and were not yet fully operational. Target validation remained cumbersome, and the effective use of forward air controllers in the air as well as forward air guides on the ground remained limited.

As late as 1975 there was still a pro-government army, a fairly efficient navy, and a fledgling air force fighting on the side of Long Nol. In addition to the military, a group of hard working, well-educated Cambodians who understood the danger of a Khmer Rouge take-over,

remained in Phnom Penh. A civilian administration remained in place - perhaps not always efficient - but it was there. By April 1975 the air force's steady losses were being reflected in a much reduced level of tactical sorties and in declining morale. In the face of a highly motivated and determined foe, Cambodia fell to communist forces in the spring of 1975.

The Air Force then almost ceased to exist with many aircraft having fled to Thailand. After Khmer Rouge forces captured the US ship 'Mayaguez', US retaliatory action by the US Navy as many as 17 T-28s were destroyed, thereby neutralizing the Khmer air power in August 1975. China supported the Khmer forces and supplied some 16 Shenyang F-6 day fighters in 1977, but only six were uncrated at Kompong Chnang, 50 miles north-east of the capital. Their use was believed to have been extremely limited. Fierce border clashes with neighboring Vietnam culminated in the invasion of Cambodia in January 1979. Guerrilla resistance continues against the Vietnamese, but the Khmer Air Force ceased to exist by February 1979. Types known to have been in the former Cambodian Air Force included AC-47 Gunships, C-123 and C-47 transports, Cessna O-1s, Bell UH-1Hs and T-28D attack/trainers, and it was fully destroyed. After the Khmer Rouge Regime Collapsed since 1979 the Royal Cambodian Air Force was reestablished with challenging to build the Royal Cambodian Air Force from former Soviet Union resources to supply the Cambodian Air Force.

The process of developing in Air Force Capability generally do not occur quickly this reflects the high costs of acquiring fixed the all aircraft and helicopters, the training and supporting required to introduce

and maintain them in service, and including all asset equipment will use for operating network after reestablishing from the pass of Cool War; Civil War in Cambodia the Royal Cambodian Air Force was faced many time to crack down the facility, property, capability etc.

The Civil War in Cambodia and Under UNTAC in Cambodia almost of the aircraft and helicopters were declining and going to break down all equipment utility including infrastructure in the Air Base.

Recently Royal Cambodian Air Force still lack of all needed for processing to run the Air Force such as human resource; aircraft, helicopter, equipment and infrastructure in the Air Base and Air Force training school.

The Royal Cambodian Air Force is the branch of the Royal Cambodian Air Force which is charged with operating all military aircraft, helicopters in Cambodia the commander of the Royal Cambodian Air Force is the General Soeung Sammang, and it located at the Phnom Penh Capital of the Kingdom of Cambodia in Khan Porsenchey; Village Kantaur, National Road N'3 Royal Cambodian Air Force is under Minister of National defense and High Command.

### **Objective of Research**

1. To provide the information about the Royal Cambodian Air Force history
2. To evaluate the situation of operating flight without full equipment belong to the Air Force.



3. To rebuild the new generation of Royal Cambodian Air Force for integrating to ASEAN Air Force for HADR (Humanitarian Assistance and Disaster Relief).
4. To Prepare the Cambodian Air Force for cooperation among ASEAN Air Force.

## **Review of Related Literatures**

1. Background
2. To Build the RCAF
3. How Human Resource selected from the 1<sup>st</sup> step of the period of the government.
4. Training
5. Organization Structure
6. Equipment, Aircraft, Helicopters
7. Tenet of development ability of Air Force.
8. Resource implicate

## **Scope of Research**

The scope of this research paper will write the issue step by step around of the Royal Cambodian Air Force only from the period of time depends on the document and interview of the day.

## **Methodology**

Through by my experience and my knowledge that I had work with from the beginning until the present day and most of document note

by Air Force website and limited of time of traveling for research and including interview from the personal.

### **Delimitation**

The subject will be studies in the period of 1979-2016.

### **Expected Research result for Utilization**

The results that I expect from my research elaborated will use my data to answer my research question, and will get a good result to complete my research paper. It is useful for utilization.

## **CHAPTER 2**

### **Literature Review**

#### **1. Background**

Cambodia faced the consequences of wars over past three decades. They left Cambodia with sufferings, pain and destruction of nearly all infrastructures across the country. There is no economy for international markets. So, Cambodian people's living and national defense relied on foreign assistances during wars. Civil wars between Lon Non-led government and Khmer Rouge leaders caused fierce fighting between the forces of the Republic and Khmer Rouge leaders regardless of Cambodian fellow troops because of the influence of Communist into Cambodian society installed in this doctrine. In 1975, the Khmer Rouge troops overcame the Republic regime. At that time, Cambodian people across the country were evacuated from their houses to various places in remote provinces. The soldiers of the Republic regime were arrested and slain without being sentenced. During the regime of Democratic Kampuchea, the Khmer Rouge air forces were trained and funded by China. Experts and aviators studied in China. After the Liberation Day of 7 January 1979, millions of people were killed directly and indirectly by the regime of Democratic Kampuchea including students, scholars, teachers, professors and soldiers of all kinds of the Republic regime. Due to destructive wars left, Cambodia made its effort to build itself from scratch until it was funded by the Soviet Union and Vietnam. Strategic plans were formulated to rebuild the national forces according to international standards including army, navy and air forces. In 1980, the air forces were established every year until the day of creating the regiment of the air forces under the Commissioner of Air

Forces and aviation. At that time, the air forces were trained by the Soviet and Vietnam with training base in Vietnam. After peace talks were conducted by four dispute parties, the air forces returned and be stationed in Pochentong.

After the national election of 23<sup>rd</sup> May 1993, aided by international communities, UNTAC (The United Nations Transitional Authority in Cambodia), Cambodia became the state with full sovereignty in national and international political arena and had the rights to decide on everything by itself without being under any state and without internal interference of any countries. Cambodia has a new constitution and political organizations. Cambodia became a state with rule of law and has the Parliament, Government and Judiciary. Under the national unity politics of Samdech Norodom Sihanouk, the troops of all sides participating in the national election were integrated – the Royal Armed Forces set up again including the army, navy and air forces. In that state, the air forces of the State of Kampuchea as well as the air forces of Funcinpec expanded themselves in many bases in Pochentong, Kompong Chhnang, Battambang, Siem Reap under the order of the High Command Headquarters of Air Forces based along National Road No.3. The resources of the air forces mostly are experts including those who underwent the military training in foreign countries such as Soviet Union, France, US, Vietnam, and Thailand and they are fully capable to defend the territorial integrity of the Kingdom of Cambodia, particularly territorial air. However, the current challenges of the air forces of Cambodia are many deficiencies including:

- The training of new resource that do not meet the requirements by the Air Force standard.
- The training is limited
- Infrastructures for training
- Necessary equipment for training, aircrafts and helicopters.

## **2. The build of air forces**

Although it was destroyed by wars, Cambodia made its effort to build itself from scratch until the quality air forces are established to serve the nation for peace. Cambodia is one of the ASEAN nation with slowly and not progress so the country go forward it developing economic. It relies on international aid. Therefore, the build of air forces is faced with many challenges so that the Royal Government of Cambodia has to pays the attention to this issue. In a series of stages, the building of air forces relies on the foreign assistances. The 1<sup>st</sup> air forces depend on the establishment of the supporting from France assistance including aircrafts, helicopters and training in all skills for serving the nation, then from Soviet Union, China and assistance of 1970 – 1975 from the US to process the air forces to wage a war with the Khmer Rouge leaders at that stage. After 1975 of Pol Pot regime, China offered aircrafts and built a new airport in Kompong Chhnang province. At that time, Khmer Rouge leaders built this airport as a strategic one for waging a war.

After 7 January 1979, the leaders of that time prepared these plan to establish the air forces again depending on the supporting from the Soviet Union with the ambition strong air forces to equip with fighter 21 B is and helicopter Mi-8 and Mi-17 for military purposes and transport of military equipment. So, during 1980, the air forces were recruited from soldiers of that government who had good achievements, knowledge and need to be trained. Students from schools in Phnom Penh city and some provinces were enlisted. The regimen No.701 was set up in 1988 and the Commissioner of Air Forces and Aviation were created in 1984 – 1985 under funding of the Soviet Union. Cambodia built the air forces proudly for protecting the territorial air as well as fighting civil wars in 1980. The Soviet was the biggest country during the Cold War which built the infrastructures of the air forces and provides many techniques for the technical work of aircrafts and many technical cars for assisting in many things as well as built a workshop for repairing aircrafts seasonally and built some technical buildings for experiment. The air force is one kind of troops which cost much money because technical equipment, aircrafts, helicopters and machinery of all kinds need proper maintenance and upkeep. From civil wars until now, equipment and fighter MiG-21bis and helicopters are unusable because of lack of budget for repair and maintenance. Although there are no enough budgets available, the Ministry of National Defense and the Commander-in-chief of the Royal Armed Forces have tried to seek foreign assistances for the air forces to obtain training in all skills. It is not easy to build the forces because it takes many years and money and physical requirements according to the principles of the air forces. Currently, if we want the forces to protect the territorial air successfully like other neighboring

nations in the region, we will spend huge budget. Due to our economy, we cannot afford it. However, the Royal Government of Cambodia have been paying attention to building the air forces gradually with two units of new helicopters Z-9 and MA-60 and equipment for serving the flight purposes. And now the air forces have been trained how to operate new helicopters and transport aircraft MA-60. Meanwhile, some members of the air forces have been studying in friendly nations such as Vietnam, Soviet Union and China.

The build of the air forces requires the development of capacity and modern aircrafts, transport aircrafts and fighters according to the standards of regional countries. The Royal Government of Cambodia need huge amount of money to buy aircrafts and machineries for serving the air forces. Depending on the funding of friendly nations, the Cambodian air forces cannot work within the regional framework, particularly participating in intervening in disasters in the ASEAN community region.

### **3. How human resources selected from the first step during the period of the government**

The air forces is part of the Royal Cambodian Armed Forces taking charge of protecting the Kingdom of Cambodia, particularly territorial air and safeguarding the security, safety and social order. It is part of contribution in building the nation and international cooperation. The air forces have five strategic bases in response to the necessary requirements of national defense. There are two main strategic bases in

Kompong Cham and Pochentong. Pochentong base was built since the Sang Kum Reast Niyum (Populist Socialist Regime). There were military equipment and materials for serving the flight purposes of aircrafts. The Kompong Cham base was built during the Khmer Rouge regime under China's funding which we have used. During the Sang Kum Reast Niyum era and Republic of Khmer, this country had many airports, but the runway was not modern, and it was just a path except key military bases.

Currently, the strategic base with active flight is in Pochentong and includes the air forces and air forces schools as well as VIP forces. This location contains sufficient human resources for ensuring the capacity to serve all working purposes and they have been trained from 1980 until now for serving the aviation sector. The air forces are the capable people who understand and study the use of modern technology. So, the capacity building for serving the sector of air forces requires huge budget for training and health care.

To ensure the security of territorial air, each state spends a lot of national budget in the sector of protecting the air in its integrity of territorial air. The protection of territorial air is part of the Rectangular Strategy of the Royal Government of Cambodia in one angle of the defense sector defining the progress of Cambodian economy. For this view, the state must use natural resources available for the safety of territorial air. Spending huge national budget on the air forces is in response to the sustainability of the national economy and security. Currently, due to its limited economy, the Royal Government of Cambodia has focused on the current issues such as poverty reduction



and building of infrastructures necessary for the development of the nation. According to the Rectangular Strategy, the territorial integrity is crucial for the Royal Government of Cambodia to commit to capacity building for serving the sector of air forces in line with the current situation of the world jointly fighting against terrorism and protecting the territorial integrity.

Concerning the first step of human resource development for serving the sector of air forces after the liberation of 7 January 1979 to meet the standards of troops in the world, the leaders of that regime decided to re-establish three types of troops including army, navy and air force cares. After the war-torn country was liberated from the Khmer Rouge regime, it obtained support from Vietnam. So, at the first step, Cambodia needs to rely on the assistance from the Soviet Union, Vietnam, as well as some socialist countries. Under auspices of the Soviet Union and Vietnam, the sources of air forces are selected from the Soviet Union. They are recruited from cadres of the troops of the government of that regime with main focus on those who have good achievements for the nation and appropriate knowledge so that they can be trained at the Soviet Union as well as physical body checkup according to the principles for enlisting the air forces. The students from Cambodian schools are recruited with main focus on physical fitness checkup and grade of education. After the students are integrated into the air forces, they are provided accommodations in Phnom Penh and wait for the final decision and to be sent to training in the Soviet Union. Every year, the recruitment of air forces is conducted. Some of them are sent to study in Vietnam. But before they are sent, they need to be sent to the division and

the returned from the division. The recruitment of these resources ended when the Cold War occurred. At that time, the support from the Soviet Union and Vietnam is no longer available. The Paris Peace Agreement was put into place. Civil wars in Cambodia ended under the supervision of the UN. Currently, the air forces have been faced with the challenges of losing human resources which have been depleted because the age of people. New people were not recruited to meet the current and future demands.

## **4. Training**

### **4.1. The foundation Training**

The Source of resource force that made the final decision of recruitment rely on good background, no relatives abroad not conjunction with the previous politic trend. The timeline for sending them to abroad is in October and November with the Soviet Air line. The duration of training is three years. The students in 1980 class study for more four years because Cambodia not yet prepared the infrastructures of air forces and are planning to set up the operational system according to the patterns of air forces. The training courses in the Soviet Union include how to operate MiG-21bis aircraft and MiG-21bis technique, Radar and work of chief of staff. When trainees arrived in the Soviet Union, they are sent to undergo physical fitness checkup to be trained as aviator. The foundation year courses include Russian language, math, and socialism theory. They are divided into the aviation group and technical group who study separately.

After finishing their first year, all the students are required to take exams of all the courses of foundation years. If any student fails, he will be repatriated to Cambodia. The study of the foundation year is very important for them because they pass the exam and they can study at the third year. The students studying aviation fail and are sent back to their country. The study of the second year includes theories and skills on aircraft type L-39 or L-29, simulator, two practices of parachute, and parachuting from the aircraft. After passing the exam, they learn how to operate aircraft MiG-21bis in their third year after passing the exam of theories on aircraft MiG-21bis.

Those fail in the subject of flight of L-39/ L-29 in their first year can study with technicians or take a course in engineering for aircraft MiG-21bis. In case they fail to operate aircraft MiG-21bis, they can study the subject of chief of staff for the air forces. The study was conducted according to the curriculum of Soviet Union. After health checkup, they can be trained as aviator. Some of other trainees need to be trained as aviator in case anyone fails.

## **4.2. Training skill**

After completing the training courses in the Soviet Union, all the air forces need to be sent for further training in Vietnam in order to obtain working experiences from the Vietnamese air forces. Some forces based in Pochentong, Phnom Penh are responsible for protecting some technical materials in a warehouse. The training to get experience from Vietnam is very important for developing the division No. 701 in 1988.

The flight training, technical work, machineries and other equipment such as aircraft MiG-21bis, technical aircraft of Cambodia aided by the Soviet Union are used according to standards.

For the flight every week, the Cambodian air forces send coaches to train some people under the supervision of Vietnam as they have enough experience to teach aviators. Experts also practice operating, repairing aircrafts in a seasonal manner. The technicians in a workshop also gain experience of loading and unloading aircraft equipment to conduct seasonal repair. The repair of aircrafts is conducted according to technical standards. Those who learn at a laboratory also operate according to the professional skills of a lab.

In early 1990, the training of Cambodian air forces was completed with satisfactory results. At that time, the Cambodian air forces returned to Cambodia. Their aircrafts and equipment would be sent later as they are being repaired. After the runway is built according to the technical standards, the air forces also prepare the training in flight at Pochentong Airport with a Vietnamese technical advisor as short-term assistant. The training of MiG-21bis flight was completed. UN forces made Cambodia free out of civil wars in 1992. All the aircrafts and equipment used for the air forces were controlled by the UNTAC (United Nation Transitional Authority in Cambodia).

After supported by UNTAC (United Nation Transitional Authority in Cambodia) on 23 May 1993, Cambodia became a state with full sovereignty in national and international arena. Cambodia has its new

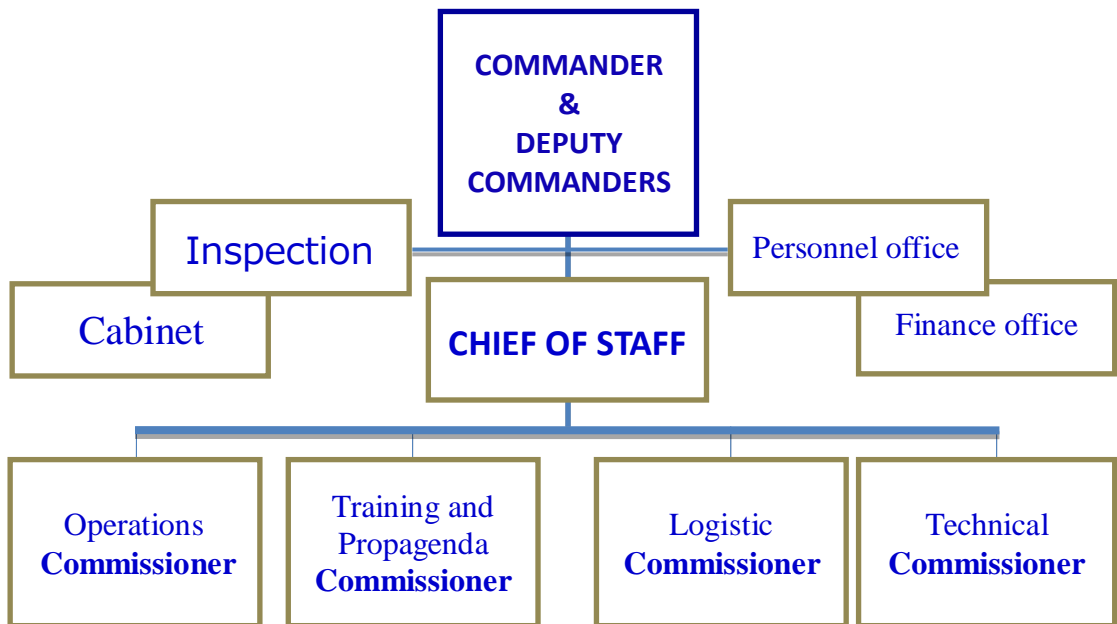
constitution and organizations to lead the country. The Royal Government of Cambodia was created as a country with the rule of law, parliamentary and governmental institutions. After the government led the forces of all sides participating in a national election, they are integrated into the Cambodian Royal Armed Forces including the army, navy and air forces. During that stage, the air forces of the era of State of Cambodia and those of Funcinpec are combined into one based in Pochentong and command at Headquarters. Continuously, after 1993, the Royal Government of Cambodia provided P92 and L-39 training for the air forces again. But this training lasted for a short period of time and was suspended because of the armed conflict between Cambodian people and Funcinpec. After the armed conflict was solved, the re-training has continued until now. The training of new aviators in Z-9 helicopter has been conducted. Meanwhile, the flight of transport aircraft MA-60 is also underway to train aviators. Who that was change the new type of aircraft.

## **5. Current Organizational Structure**

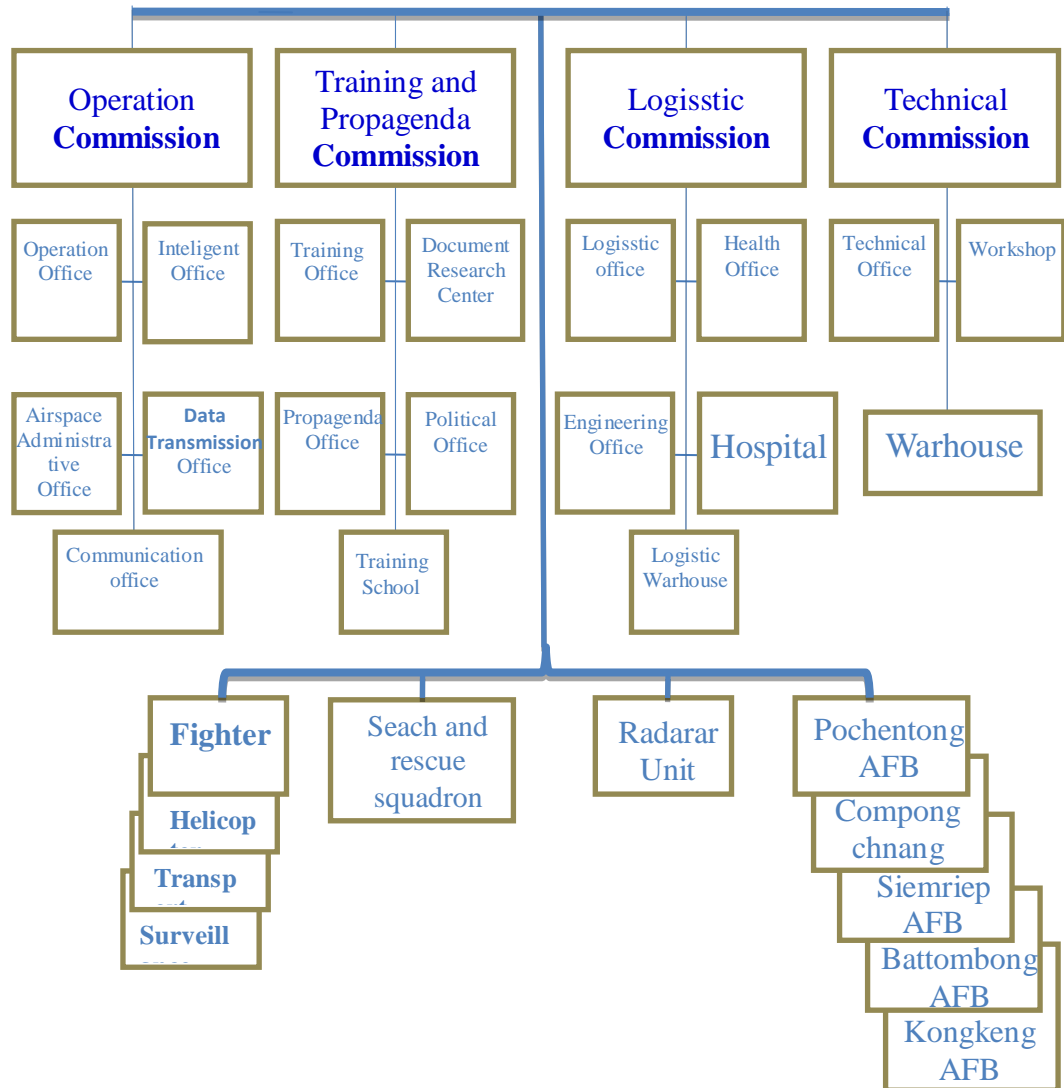
The Royal Cambodian Air Force is the branch of the Royal Cambodian Armed Force which is charged with operating all Military aircrafts in Cambodia. The Royal Cambodian Air Force is commanded by General Soeung Samnang who has ten deputy commanders beneath him. The Air Force it-self is under the jurisdiction of the Ministry of National Defense and High Command.

The Air Force Headquarters are located at Phnom Penh Capital of The Kingdom of Cambodia in Khan Porsenchey; Village. Kantaur, National Road№ 3. The ten deputy commanders is the assistant and responsibility to the commander of difference duties of the Royal Cambodian Air Force.

**Figure 2-1 Organization Structure**



**Figure 2-2 Organization Structure**



The Royal Cambodian Air Force has four commissioners and each commissioner commander by one deputy commander that will take charge of important matter capable duties on training, technique, logistics and operation.

## **The Air Base**

The currently air base use for the Air Force Consisted of 5 Air Bases and it located difference are.

## **The Pochentong Air Bases**

Pochentong ICAO Code: VDPP, IATA Code: PNH also known as Phnom Penh International Air Port. Pochentong Air Port is Located in the south of the central region of the country, on the Mekong River. The Air Port is 5 miles (7 km) west of the capital City, Date of construction not know, but it was probably built by the French. It is currently in joint civil-military use. Pochentong has been the main Base of the RCAF and its predecessors since 1954. It was the home of AVRK flying training school from April 1955. Runway data: Paved RWY 05/23 size 9842 x 131ft (3000 x 40m) Elev 39ft (12m) Location: 104° 50' 39" E 11 32' 47' N

Pochentong Air Base is the main air base of the Royal Cambodian Air Force which operated the flight training and flight operation for all Aircrafts and Helicopters. In the Air Base was existed together with the many squadron and many until of the Air Force.

- The fighter squadron give in charge of the L-39c that it supplied by Israel Aircraft Industries in 1996 but the present day is not operated by lack of spare-part and also stand on the MiG-21bis.

- The Transport squadron was flight operated the MA-60 aircraft and non-operation aircraft were AN-24RV, Y12-II (Harbin), AN-26, BN-2, Cessna 421 and TU-134.



- Helicopter Squadron existed Mi-8, Mi-17, Mi-26Halo and Z-9.

- Reconnaissance Squadron conducted flight observation duties by light air craft Tecnam P92 Echo, but for the currently time stop operation by the condition of aircraft.

- KompongChhnang (IATA code: KZC)

KompongChhnang Airport is located at the southern tip of Tonle Sap Lake, in the centre of the country, 50miles north east of the capital, It was built by the Chinese circa 1977, to house the Shenyeng F-6 fighter Spuadron, It is now Pargely derelict, Runway data: RWY 36/18 Size 5413ft (2400 x 45m), Elev: 49ft, Location: 104° 13' 28" E, 13° 05' 44" N.

- Siem Reap (ICAO Code: VDSR, IATA Code REP)

Siem Reap International Air Port is located in the north of the country, just north west of TonleSape Lake. The airport is located 2 miles (4km) west of Angkor Wat. Chinese engineers helped build a runway here in the mid-1960s. it is in current civilian and military use.

Runway data: Concrete RWY 05/23, size: 8366 x 148ft (2550 x 45m), Elev: 59ft (18m), location: 103° 48' 46" E, 13° 24' 38" N.

- Sihanouk International Airport is located 20 kilometers (12mi)

East of Sihanouk Ville City in Preah Sihanouk Province, is Cambodia's third largest International airport. The Airport is also known as Kaong Kang Airport.

Runway data: RWY 03/21 (Airport)

Elev: 40ft (12m), 10° 34' 48" N, 103° 38' 13" E (location)

Length 2500m x

## **6. Equipment: Aircraft, Helicopter**

Cambodian Pilots and technicians were in training in Soviet Union. After graduating with full success of the first and second promotion of pilot students and Technician student at the end of the year 1984 were returned the country; but in that time the infrastructure of the Air Base is not full completed for training, it cause by lack of the Radar P-18, P-19, P-37, PRV, Radio Communication, Tower, Runway, etc., and especially organization structure of the Air Force. So that all the students of Pilot and Technicians were sent to Bien Hoa for training beneath Vietnamese instructor.

The Kampuchea People Air Force (KPAF) had been spending six-years for training experience independent graduated in Vietnam until early year 1990 and returned home.

Period the flight training in Bien Hoa the KPAF was used the new last model of MiG-21bis that it provided from Factory USSR direct to the KPAF in South Vietnam amount 21 Aircraft and build up in Factory A-32.

The nucleus of the new air arm was formed around a few Mi-8/24 helicopters in 1985 and the first new fighter squadron, Unit 701, was

declared operational in mid-1989. Unit 701 flew MiG-21bis; its pilots were trained in the USSR and Vietnam.

A number of transport aircraft were active by 1990. Five new Mi-17 Hip helicopters were received from the Soviet Union in early 1990. In January 1995 it was reported that Israel Aircraft Industries was to upgrade 15 Mikoyan MiG-21bis of the Cambodian Air Force. The \$80 million deal "was expected to be signed soon". The Israeli package was to include a new mission computer, cockpit avionics and a radar-warning system.

By 2000 IAI of Israel had upgraded at least six of Cambodia's MiG-21bis. Although two aircraft were delivered in 1997, work on the other four was suspended, pending Cambodian payment to IAI. The MiG-21bis-2000 upgrade included a service life extension, an improved weapons system and new cockpit, GPS-based navigation and Western communications equipment. The upgrade also included the Python 3 AAM and the Griffin LGB. There was speculation that the contract covered conversion of nine single-seat and one twin-stick MiG-21bis.

IAI also procured and modified six L-39 Albatros trainers for Cambodia: one was lost soon after delivery. Cambodia's difficulty in meeting the financial terms of its contract made it unlikely that the remaining MiG-21bis, which were thought to be unserviceable, would be upgraded.

According to the 2000 Defense White Paper, while trainer aircraft may be equipped with weapons systems to provide fire support for ground forces, the maintenance of a significant air combat capability

could not be justified. Developments in Air Force capabilities generally do not occur quickly. This reflects the high costs of acquiring fixed or rotary wing aircraft and the training and support required to introduce and maintain them in service. Air transport is, however, valuable in supporting the rapid deployment of troops and supplies, and providing access to remote areas. Cambodia's limited national infrastructure strengthens their value.

In the new century, the costs and complexity of maintaining an operational helicopter force did not make this a priority, even though air transport may be very useful in the rainy season. Civil aircraft may be used where available, for rapid movement between the major regional centers in emergencies. However, the national civil capability is limited and movement will normally be by road or river. The disposition of forces to the various regions, and the more stable political environment should however, makes this need less frequent.

With economic growth in the future, the Air Force may consider the acquisition of a small number of short-range transport aircraft, possibly under a lease arrangement, including maintenance support. Resource expenditure on repairing the current fleet will, as with the case of the Navy's patrol craft, only be considered after the costs and future operational effectiveness of those aircraft have been carefully considered.



As of 2000 the important decision that must be made was whether the existing squadron of utility helicopters can be repaired and maintained, and their operational availability assured, at a reasonable cost.

If that is possible, available Air Force resources should be focused on achieving that operational output. The maintenance of pilot training skills is also important. Should existing equipment not be supportable, the purchase of new rotary wing aircraft and associated maintenance and support arrangements would be considered. Resources were, however, most unlikely to be sufficient to pursue such a purchase in the short term.

In the longer term, the demands of force mobility and the potential advantages of aerial surveillance suggested that Cambodia should consider the acquisition of a small number of short range, tactical lift, fixed-wing aircraft. These would be based on normal civilian specifications and may be equipped with surface surveillance radar to assist maritime patrolling.

November 25<sup>th</sup> 2013, Twelve Chinese built Zhi-9(Z-9) utility helicopters, which Cambodia had purchased from China were delivered to the Royal Cambodia Air Force on Monday. The handover ceremony was held at the capital's Military Airbase between Cambodian Deputy Prime Minister and Defense Minister Tea Banh and Chinese Ambassador to Cambodia Bu Jianguo.

Tea Banh said the helicopter delivery was a new historic achievement in addition to numerous supports the Chinese government has given to Cambodia. "The helicopters will be used to serve training in order to strengthen capacity for the Royal Cambodian Armed Forces in defending territorial integrity and in cracking down on offenses in remote areas," he said. "They will also be used for humanitarian activities such as disasters."

Tea Banh also highly spoke of excellent relations and cooperation between Cambodia and China under the leadership of Cambodian Prime Minister Hun Sen and Chinese leadership. "The friendship relations between Cambodia and China have moved closer, reaching the Comprehensive Strategic Partnership of Cooperation in 2010," he said. "The bilateral excellent ties will bring mutual benefits to the two countries and peoples."

Bu Jianguo said that the Z-9 choppers are capable of carrying people and materials in case of any emergency rescues. "China believes that the helicopters will enhance capacity for the Royal Cambodian Armed Forces in emergency operations in case of any disasters," she said.

Soeung Samnang, commander of the Royal Cambodian Air Force, said the Z-9 helicopters were purchased from the China National Aero-Technology Import and Export Corporation (CATIC). "They are medium-sized carriers," he said. "They will help increase efficiency and capacity for the air forces in their national defense duties," he added. China lent Cambodia \$195 million in August, 2011 to buy those choppers.



MiG-21bis 7117



Grounded fleet of MiG-21bis



An-24RV XU-314



An-24RV XU-312



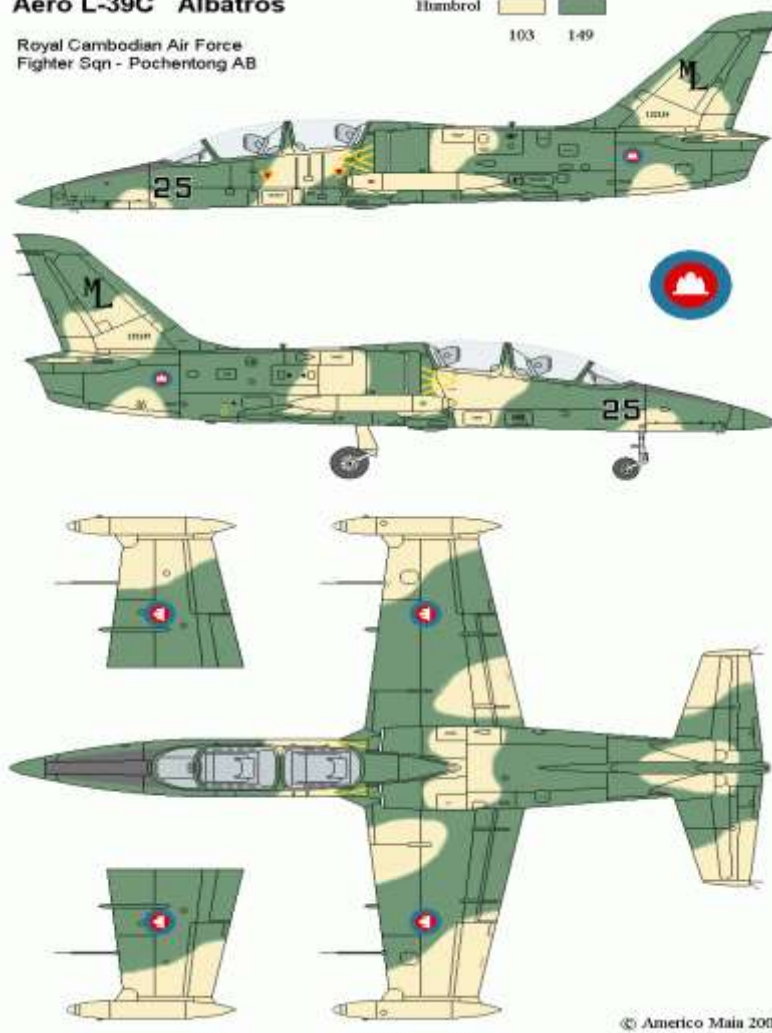


### L-39C

#### Aero L-39C Albatros

Royal Cambodian Air Force  
Fighter Sqn - Pochentong AB

Hambrol 103 149





Mi-8 XU-802



Mi-8 XU-801





Mi-17 XU-170



Mi-17 XU-175



Mil Mi-26T XU-268



Mil Mi-26T XU-269



P-92 Echo XU-205



Y-12





MA-60 XU-302



Zhi-9 (Z-9) MH-903



Zhi-9 (Z-9) MH-902



Grounded fleet of Zhi-9 (Z-9)

## **7. Tenet of Development Ability of Air Force**

To develop the capacity of air forces to well serve the national defense sector effectively, the Royal Government of Cambodia must invest bountiful resources in promoting the air forces with modern military equipment to respond to the important situation which may occur. The capacity building of air forces is to provide modern equipment for serving the purposes of flight such as radar system, communication radio system, and other factors as well as modern airplanes necessary for protecting territorial air integrity and fulfilling the humanitarian work for natural disasters.

The regular flight training is aimed at upgrading the knowledge of aviators and all kinds of experts to use modern equipment. Insecurity and instability of each country is the responsibility of the armed forces of that country in protecting and defending them. Therefore, to safeguard security, safety and social order affected by foreign invaders, we must strengthen the capacity of our armed forces in all the sectors based on the national and international laws.

Currently, for Cambodia which survived the prolonged civil wars, the building of capable air forces is very challenging. We need to rely on the assistance of major fraternal nations. After it was liberated from the Genocidal Regime on 7 January 1979, almost everything was destroyed including the military of air forces. Urgently, the influence of cold wars caused insecurity and instability for Cambodia to make its best



effort to prevent the reoccurrence of Genocidal Regime surviving at the borderline of Cambodia and Thailand and inside the country's provinces near the border. At that time, the revolution troops of the Phnom Penh government were set up based on the socialist system with assistance of Vietnam and Soviet Union. At that stage, the Air Forces also started to be re-established under funding of Soviet Union and Vietnam to send people to be trained over there as well as organize the infrastructures of air forces.

For the first time on 06 October 1980, 84 trainees of aviation skills and aviation experts of first batch were sent to study the skills of air forces in Soviet. While sending people to be trained in Soviet, some trainees were sent to study some skills relating to serving the sector of aviation. This activity was conducted continuously each year until the Cambodia signed the Paris Peace Agreement and cold wars between the United States of America and Soviet ended. At the stage of cold wars, Cambodia is a country in socialist bloc; therefore, the building of air forces under funding of Soviet is very easy because at that time Cambodia went through civil wars funded by the western world and survival of Khmer Rouge Genocidal regime. At that time, the Cambodian air forces were fully capable to protect air territorial integrity from being violated by neighboring foreigners.

After Cambodia joined the ASEAN membership in 1999 and ten nations became the ASEAN community in 2015, Cambodia has readied itself for everything to adapt itself smoothly among the ten ASEAN countries. Meanwhile, the Cambodia air forces are also trained

in how to manage natural disasters and get ready to respond to the demands of mission of natural disaster rescue amongst the ASEAN air forces.

## **8. Resource Implicate**

Cambodia has recently recovered from decades of civil conflict, and remains one of the poorest countries in the region. The current political stability and peace in Cambodia has provided great opportunities for the Royal Government of Cambodia (RGC) to focus on national reconstruction and economic development. The Royal Cambodian Armed Forces (RCAF) is currently at a major crossroads with respect to reforming its forces which contributes to the government's grand strategy called the "Rectangular Strategy".

This strategy lists reform of the RCAF as one of the outcomes needed to achieve national strategic objectives. It states that the RGC is strongly committed to military reform with the goal of rebuilding the armed forces to an appropriate size and quality to be able to defend the country in wartime and peacetime. Although the RCAF has achieved its missions considerably satisfactorily, it faces significant challenges with respect to its reform program.

The RCAF's defense policy and strategy and its role in the achievement of Cambodia's national strategic objectives. The RCAF's evolution from independence to the modern era. It then discusses Cambodia's national security challenges, both traditional and non-

traditional. This discussion is followed by an analysis of Cambodia's strategic guidance and the RCAF's role and response to meet the government's strategic objectives. It will also examine security trends in the Asia-Pacific region and their implications for Cambodia's security environment. Finally, it will consider some recommendations for Cambodia to develop the RCAF to achieve Cambodia's national strategic objectives in peace, conflict, and war in the 21st century.

Cambodia's national defense policy and objectives are based on three main strategic factors: the RGC's political agenda, assessments of threats to national security, and the state's Constitution. The RGC's strategic interests and objectives have focused on international security, social order, national reconstruction, and international cooperation.<sup>18</sup> As Cambodia is one of the poorest countries in the region, its primary national interest is economic development and reducing poverty. Cambodia's capacity to address its main challenge of achieving its poverty reduction target will be impossible without assistance from the international community.

As a result, one of the pillars of Cambodia's "Rectangular Strategy" is to integrate Cambodia into the regional and international communities. To achieve its goal, the RGC has embarked upon reforms in many fields of government, including military reform as one of the key fields of reform for the RGC. The Prime Minister has firmly committed to the necessity of reform by stating that "reform is a matter of life and death for Cambodia."

The RCAF has played a significant role in achieving Cambodia's national security concerns and national interests. The RGC's defense policy changed dramatically after the demise of the Khmer Rouge administrative and military organization in 1998, as peace prevailed throughout the country. The RCAF's primary role was swiftly re-oriented from an inward-looking to an outward-looking policy. Emphasized in the Cambodian National Defense White Paper 2006, there are four basic roles of the RCAF: to defend the nation and its strategic interests; to contribute to national development; to maintain peace, stability, and social order; and to participate in international cooperation. All of these roles will remain relevant as part of the national effort to promote stability and achieve strategic objectives.

Recently, the RGC has purchased new military equipment such as almost one hundred of the new Eastern European-made tanks, combat vehicles, and Armored Personnel Carriers (APC), and most recently the government purchased a number of Chinese-built Zhi-9 utility helicopters. More soldiers have been recruited. The RGC has increased its naval capability by increasing the size of the navy and purchasing more equipment in order to protect Cambodian maritime interests. As for security institutional building, the RGC has established counter terrorism and maritime security to protect Cambodia's national interests. Cambodia's defense spending has increased considerably. The national budget increased 17 percent to USD 2.4 billion of which USD 300 million is allocated for national defense sector. This is compared with the 2010 budget which was USD 1.97 billion, of which USD 276 million was allocated for defense spending.

## **CHAPTER 3**

### **Literature Review**

#### **HISTORY**

The present-day Royal Cambodian Air Force is decent from the Aviation Royale Khmer (AVRK), which was established by the French and later became the Khmer Air Force (KhAF). The communist Khmer Rouge take-over in 1975 resulted in the adoption of the title Air Force of the Kampuchean Liberation Army (AFKLA). The air force was disbanded following the Khmer Rouge off power in 1975 early January - but in 1985 a new air arm called the Kampuchean People's Air Force (KPAF) was created to help in anti-guerrilla operations. The KPAF was disbanded in 1992, prior to UN organised elections. The Royal Cambodian Air Force (RCAF) was established in 1993.

#### **Aviation Royale Khmer**

##### **Air Force History 1954-1970**

Although the Khmer empire was a dominant regional power between the 11th and the 14th centuries, Cambodia had, by the late 19th century, succumbed to French colonialism. Formal independence from France was granted in 1954, in the wake of the French withdrawal from Indochina. Although the first tentative steps to form a Cambodian air arm had been taken in 1952, it wasn't until April 1954, that the Aviation Royale Khmere, or AVRK, was created by Royal decree. Its commander was Colonel Ngo Hou. Originally, it was envisaged that the AVRK would consist of 2000 men and 80 aircraft. By October 1954, French instructors had initiated the first flight training courses. At this time the

AVRK had a total of eight aircraft on strength: four MS 500s, two Cessna 180s, one Cessna 170 and one VIP DC-3.

Although French influence remained strong during the whole of AVRKs existence, a US MAAG team arrived in Cambodia as early as 1956, to co-ordinate the supply of aircraft. An ambitious plan for a vastly expanded AVRK were put forward by the MAAG team. No less than 60 F8F Bearcats for three Fighter Groups, 40 Cessna L-19 Bird Dogs for two Observation Groups, one helicopter squadron, one Reconnaissance Flight and an instructional centre were planned for the future AVRK. Perhaps not surprisingly, these somewhat over-ambitious plans were never realized.

Delivery of light strike aircraft had commenced in 1955, when seven Fletcher FD-25 light COIN aircraft were received. These were soon supplemented by armed MoraneSaulnier MS 733 Alcyons. In 1958, the strike capability was further enhanced with the delivery of 14 T-6 Texans. Although these aircraft were capable of carrying a certain amount of ordnance, their limited capability became all too clear during a brief conflict with South Vietnam. On June 18, 1958, ARVN forces occupied Stung Treng province. Fearful of reprisals, the Cambodian High Command chose not to field any of its strike aircraft. At this juncture, the South Vietnamese Air Force had about 40 Grumman F8F Bearcats, an aircraft with a much superior performance to the few AVRK T-6s, FD-25s and MS 733s. As a result, the AVRK played virtually no role in the conflict.

Up until 1962, the AVRK was further strengthened with the delivery of further aircraft from both France and the USA. As a result of

the escalating conflict in South Vietnam, Cambodia declared itself neutral. Politically, the country was led by Prince Norodom Sihanouk. During the early 'sixties, Cambodia denounced the "American Imperialist aggression", and turned towards the eastern bloc. The last US aircraft delivered to the AVRK were 16 T-28 Trojans, delivered in August 1962, and four T-37B Tweets, delivered in March 1963. Instead of receiving training in the USA, Cambodian pilots and maintenance staff were sent to the USSR and China for flight training. Training in France continued unabated, though. After receiving training in the Soviet Union, the first MiG-17Fs were delivered in November 1963. By August 1964, the US MAAG was withdrawn from Cambodia. Up to that point, the USA had supplied military equipment worth 80 million dollars to Cambodia.

The AVRK tried its best to defend Cambodian neutrality - even shooting down a VNAF Cessna O-1 on March 21, 1964. Numerous incursions were made by US, VNAF and RTAF aircraft. Between 1962 and 1966, several VNAF pilots defected to Cambodia - their aircraft and helicopters, including three A-1H Skyraiders and two Sikorsky H-34s were incorporated into the AVRK inventory. France continued to deliver aircraft to Cambodia, supplying 15 A-1D Skyraiders in 1964 and 1965. The USA protested to no avail against the delivery of the Skyraiders. These Skyraiders had originally been supplied to France during the late 'fifties for use in Algeria. It has been suggested that the USA wanted to purchase the A-1Ds for their own use. This remains unsubstantiated, though. It can be said that the A-1D variant was never used by the USA during the Vietnam conflict, as all A-1Ds remaining in US service either had been relegated to training duties or withdrawn from service.

During 1968, the AVRK operated a total of 143 of aircraft and helicopters of 23 different types, built and/or designed in France, the USA, the USSR, China and Yugoslavia. As a result, maintenance was a huge problem. Sihanouk's tightrope act of trying to keep Cambodia out of the Vietnam War was eventually thwarted by the presence of nearly 50,000 North Vietnamese troops in eastern Cambodia, as well as numerous incursions from South Vietnamese, US and Thai forces. Several US aircraft had been shot down by small arms fire, including a C-123 Provider in 1964, a P-3 Orion in 1968 and a U-1 Otter in 1969. In most such cases, the US crews lost their lives.

During early 1970, most of the strike aircraft of the AVRK were worn down by continuous operations. Of the Skyraiders, only between three and five could be maintained in an airworthy condition each day. Tentative steps were taken to replace the ageing A-1Ds with a squadron of MiG-21bis. This never happened, though.

On March 18, 1970, Prince Sihanouk was deposed in a coup d'etat. The Right-wing general and close US ally Lon Nol seized power. Shortly after the coup d'etat, US forces invaded Cambodia in an attempt to strike against the NVA sanctuaries in Cambodia. Cambodia was now a staunch ally of the USA, and the delivery of aircraft began anew.

## **Khmer Air Force**

### **Air Force History 1970-1975**

After General Lon Nol seized power on March 18, 1970, US and South Vietnamese aid began anew. Just two days after the coup



d'etat, on March 20, about 20 A-1 Skyraiders of the VNAF were temporarily deployed to Pochentong. Between 1970 and 1975, VNAF aircraft were deployed to Pochentong as well as other airfields in Cambodia on a regular basis. In support of the new regime, US forces launched a large scale assault on April 24 on NVA and Khmer Rouge forces in eastern Cambodia. By June 29, US forces had been withdrawn.

By mid-June, a report on the status of the AVRK was prepared by the US air attache in Phnom Penh. The sole combat unit, the First Intervention Group, consisted of 13 MiG-17s, four FougaMagisters and six T-28 Trojans. None of the Skyraiders were operational. The transport fleet of 16 C-47s, one Il-14 Crate and two U-6 Beavers were only 50 % operational. One of four T-37B Tweetys was airworthy, but nothing is known about the remaining training aircraft, such as the Gardan GY-80 Horizons.

Apart from having a low operational capability, the AVRK also lacked spares and all kinds of munitions. As a result, the MiG-17s were modified to carry US made 20 mm guns, as well as Mk 82 and FAB-250 bombs. During 1970, the number of sorties flown by the 1st Intervention Group increased significantly. Between March and October, the T-28s flew a total of 2,016 sorties, while the MiGs accounted for 360 sorties. F-86F Sabres and AC-47D gunships of the Royal Thai Air Force supported the Khmer government forces as well.

On January 21, 1971, the AVRK was virtually annihilated during an NVA sapper attack on Pochentong. The majority of the AVRK inventory, including T-28s, MiG-17s, O-1s etc, was destroyed, as well as three O-1 Bird Dogs of the VNAF. The only AVRK combat aircraft to

escape destruction were six T-28 Trojans that were temporarily deployed to Battambang. Apart from the losses of aircraft, 39 officers and enlisted men were killed and another 170 injured. This disaster was of such immense proportions, that it was later seen as one of the main reasons for the downfall of the Lon Nol regime. Pochentong was closed for almost a week while the damage was assessed and initiated. The runway had to be repaired, and the stocks of fuel and munitions replenished. New aircraft started to arrive soon afterwards from the USAF under Project Flycatcher. In total, 82 aircraft, including T-28s, O-1s, T-41Ds, AC-47Ds and C-47s were delivered. A few C-47 transports were supplied from Australia as well.

On December 15, 1971, the AVRK was redesignated as the Khmer Air Force, becoming a fully independent service. Although the KhAF were receiving more aircraft, losses remained high. This was due to a lack of training, as well as increasing combat losses. By August 1972, 14 T-28s had been lost, eight of which had crashed due to pilot error. During the first half of 1972, four T-41D trainers were lost in separate incidents, all pilots being killed. On March 17, 1973, a disgruntled KhAF pilot, Capt So Patra, attacked the Presidential Palace. A total of 43 were killed and another 35 injured in the attack.

On August 15, 1973, a ceasefire came into effect in Cambodia. Although US air support ended on that date, the KhAF was reinforced prior to the ceasefire with the delivery of 12 T-28Ds, six UH-1Hs and five C-123K Providers. With the Khmer Rouge guerrillas controlling large parts of the countryside, the Khmer armed forces were fighting an up-hill battle. On November 19, 1973, the Presidential Palace was struck

yet again by a KhAF pilot, Lt Lim Khun. As a result of this second attack, President Lon Nol purged the KhAF of what was considered to be illoyal elements.

By January 1974, up to 40 daily T-28 sorties were flown. Through the year, the number of sorties increased dramatically with up to 120 daily T-28 sorties in September. However, in October, the US supply of munitions was drastically decreased. After this reduction of supplies, the KhAF were only able to mount a maximum of 49 T-28, six AC-47 and ten UH-1H gunship daily sorties, even though much more was deemed necessary to contain the Khmer Rouge.

Even though US support continued, albeit on a limited basis, it was becoming increasingly obvious that the days of Lon Nol were numbered. An airlift by civilian airlines, including Bird Air and Flying Tigers, brought in vital supplies to the beleaguered cities. US military aircraft could not be used, due to the 1973 Peace Treaty. Instead, the USAF bailed a number of C-130s to Bird Air in order to increase the number of aircraft available for the airlift. The airlift was finally suspended on April 11. Amazingly, no aircraft had been lost, although nine Cambodians were killed when Pochentong was shelled by the Khmer Rouge. On April 12, Operation Eagle Pull, the evacuation of US citizens and third national was initiated.

The last KhAF sortie was flown on April 16, after the Khmer Rouge had captured the control centre at Pochentong. The control centre was bombed by T-28s, which then were flown to safe haven in Thailand. In the final exodus of the Khmer Air Force, 97 aircraft, consisting of 50 T-28s, 13 UH-1Hs, 12 O-1s, 10 C-123Ks, seven AC-47Ds, three AU-

24As, one C-47 and one T-41D were flown to Thailand. As the aircraft had been supplied to the KhAF under various aid programmes, they were returned to formal US ownership, and redistributed to other air arms in the region, including the Philippines and Thailand. Others were returned to the USA, or scrapped. For the Cambodian people, the Killing Fields of the Khmer Rouge was about to unfold.

## **Air Force of the Khmer Liberation Army**

### **Air Force History 1975-1979**

When the Khmer Rouge seized power on April 17, 1975, they captured an estimated 100 Khmer Air Force aircraft. A few of these, including two T-28s at Battambang, were intentionally destroyed, while still others were left to rot. The Khmer Rouge based its revolution on an agrarian peasant basis, renouncing urban life in general and technology in particular. As a result, aviation received scant attention by the Khmer Rouge. Indeed, refugees mentioned that the skies seemed empty reinforcing the notion that Kampuchea had been abandoned by the outside world.

The aircraft captured by the Khmer Rouge were further depleted on May 15, 1975, when US Navy A-6 Intruders and A-7 Corsair IIs attacked Ream air base, destroying five out of 12 T-28 Trojans. The attacks occurred in conjunction with the Mayaguez rescue operation by US forces.

During mid-1975, the first military equipment was received by China. Chinese military advisors also arrived in Kampuchea, as

Cambodia had been renamed. Among these were some 320 air force advisors. One of the projects initiated by the Chinese was primary flight training at Pochentong. UH-1Hs were used for helicopter training. The sole trained pilot of Khmer origin, Pech Lim Kuon, defected to Thailand on April 30, 1976 in a UH-1H. He had been one of ten pilots, five Kampuchean and five Chinese, who were receiving flight training. Other aircraft, including C-47s and possibly T-41Ds were overhauled at Pochentong and Battambang. Refugees spoke of what was thought to be North Koreans at Battambang, attempting to restore to airworthiness as many aircraft as possible.

The foundations of an air arm, the Air Force of the Kampuchean Liberation Army, AFKLA, were created. Nothing is known of its origins and infrastructure. The mainstay of the AFKLA seems to have been Douglas C-47 transports and UH-1H helicopters. Apart from flight training, the majority of sorties flown were apparently transport and propaganda, "PsyWar" ones. Intriguingly, four T-28s were featured in a Chinese propaganda film, shot at Pochentong during 1977, taking off on a seemingly operational sortie.

In 1977, the AFKLA received an infusion of new aircraft from China in the shape of Shenyang F-6C fighters and Harbin H-5 bombers. At least six, and possibly as many as 16 F-6Cs were received, while at least two, and possibly three, H-5s were delivered. A new air base at KompongChhnang was constructed by the Chinese advisors.

During their reign, the Khmer Rouge conducted numerous border incursions against both Thailand and Vietnam. On one occasion, on February 25, 1976, VPAF MiG-21s based at Pakse in Laos bombed

Siem Reap in northwestern Kampuchea in retaliation for such attacks. As a response to further border incursions, Vietnam invaded Kampuchea on December 25, 1978. At the time of the invasion, it was estimated that the AFKLA consisted of 16 F-6Cs, 17 T-28s, 10 UH-1Hs, eight C-47s, three C-123Ks and about ten O-1s, T-41Ds and AU-24As. It is not known to which extent the AFKLA was used, although a H-5 reportedly flown by a North Korean crew was claimed as shot down.

On January 7, 1979, Vietnamese forces reached Phnom Penh, forcing the Kampuchean leader Pol Pol to flee. Depending on the source, Pol Pol and his aides used either two or five UH-1Hs in their escape. After reaching Thailand, the UH-1Hs were disabled by their crews, after which the remnants of the Khmer Rouge slipped into the jungle.

Among the AFKLA aircraft captured by the Vietnamese were six F-6C fighters at Kompong Chhnang, ten A-37s, three C-123Ks, six C-47s, three Alouette IIIs as well as a few T-28s. Most of the captured aircraft were carried off to Vietnam, and incorporated into the VPAF. Interestingly, during the invasion, the VPAF had employed the same tactics that had been used by the USAF during the Vietnam War. Cessna O-1 Bird Dogs or Antonov An-2 Colts operated as FAC aircraft, with Cessna A-37Bs, Northrop F-5s and MiG-21s being utilized as strike aircraft.

Despite being able to oust the Khmer Rouge from power, large units of Khmer Rouge guerrillas continued to roam and terrorize the countryside. The fighting in Kampuchea would continue for the remainder of the decade.

## **People's Kampuchean Air Force**

### **Air Force History 1984-1992**

In 1984-1985, the People's Kampuchean Air Force, PKAF, was formed. At first, the PKAF consisted mainly of transport aircraft and helicopters, An-24 Cokes and Mi-8 Hips, and Mi-17. Most of the aircraft seems to have been transferred from resident VPAF units, although it is likely that the PKAF also operated a few former AFKLA aircraft, including one C-47, one UH-1H and one AU-24A.

In 1988, a fighter squadron, the 701st Fighter Regiment, was established under the aegis of the VPAF. The name of the Figher Regiment had its origins in January 7 (701), 1979, the day when Pol Pot fled to Thailand. Initial training of pilots and maintenance staff took place at Bien Hoa AB in Vietnam, while 19 second-hand MiG-21bis Fishbed fighters and three MiG-21UM Mongol conversion trainers were obtained from the Soviet Union. During training, one MiG-21 crashed. The 701st Fighter Regiment was not declared operational until 1989, after which it was based at Pochentong.

In 1990, Vietnam began withdrawing their forces from Kampuchea. Fighting between Kampuchean government forces and the remnants of the Khmer Rouge continued unabated, though. Protracted peace negotiations, supervised by the United Nations, meant that the PKAF officially disbanded in October 1991. The MiG-21s of the 701st Fighter Regiment were handed over to the United Nations Transitional Authority in Cambodia, UNTAC, while most of the transport aircraft and helicopters were kept operational for use by the national airline,

Kampuchea Airlines. In 1992, the PKAF was briefly resurrected as the State of Cambodia Air Force, SCAF. (Prior to this, the country's name had been changed into its original name, Cambodia.) In reality, though, the SCAF remained non-operational.

## **Royal Cambodian Air Force**

### **Air Force History 1993-Present**

In September 1993, a new air arm, the Royal Cambodian Air Force, RCAF, was formed. Among its staff were included many officers which had served with the Khmer Air Force. About half a dozen MiG-21s were returned to operational status, with about ten Mi-8/Mi-17 Hips used for gunship and troop transport duties forming the backbone of the RCAF.

During January and March 1994, government forces attacked two Khmer Rouge strongholds, Anlong Veng and Pailin, in eastern Cambodia. Some armed reconnaissance sorties were flown by the 701st Fighter Regiment. On one sortie, one MiG-21 received slight damage by small arms fire, its pilot making a forced landing at Battambang. However, due to the limited capability of the RCAF, its air assets were rarely used to full effect.

During 1995, a plethora of various transport and training aircraft were acquired from a number of countries, including China, France, Great Britain, Israel, Italy and the Ukraine. Among the aircraft acquired were three BN-2 Islander light transports, which were pressed



into use as light attack aircraft as well. Six Technam P 92 Echo trainers were delivered from Italy, while the Israeli company IAI supplied six Aero L-39 Albatros basic jet trainers. IAI also offered to train and re-organize the RCAF. In the event, four MiG-21s were despatched to Israel for refurbishment by IAI. The helicopter fleet of Mi-8/Mi-17s was augmented by the delivery of two heavy-lift Mi-26 Halos from Ukraine. Incidentally, most of the helicopter pilots and maintenance staff were from Eastern Europe, being hired under contract to fly and maintain the Mi-8s/Mi-17s and Mi-26s.

Operations against the Khmer Rouge continued, with an offensive being launched during the 1996 dry season. With most of the MiG-21s grounded, the operational elements of the RCAF included five Mi-17 gunships, eight Mi-8/Mi-17 troop transports, and three BN-2 Islanders, one of the latter being lost during the offensive.

By 1998, the last remnants of the Khmer Rouge had finally been defeated. The situation for the RCAF remained dire, though. Two of the MiG-21s refurbished by IAI were returned to Cambodia in 1999, with the remaining two being embargoed due to the lack of payment. Lack of funds also prevented the refurbishment of a further five MiG-21s, as had been originally intended. By 2000, no less than 15 MiG-21s were in outside storage at Pochentong, slowly but steadily rotting away. Most of the MiGs appeared not to have been flown, or even moved for that matter, since at least 1992. Both of the Mi-26 Halos were stored at Pochentong as well.

Since the end of the hostilities, RCAF operations have centred around training, liaison and VIP transport. Sorties in support of

humanitarian needs have been conducted as well. Five of the L-39s are still in service, although at least two have been grounded at anytime due to lack of spares. As Cambodia remains one of the world's poorest and least developed countries, the future of the RCAF remains uncertain. For the foreseeable future, the remaining L-39s and two refurbished MiGs will constitute the sole combat aircraft. With no serious external threat, emphasis will be placed upon developing available training, liaison and transport assets.

Cambodia's status as one of the poorest countries in the world has meant that the RCAF has received very little development. As the country has been largely peaceful since the mid 1990s, the focus of operations is on humanitarian aid flights and support to the various arms of the government. Consequently, most of the air force's budget is spent on maintaining the transport and helicopter fleet.

A contract with Israel Aircraft Industries to upgrade 9 MiG-21bis and 2 MiG-21UM to MiG-21-2000 standard was been suspended after Cambodia encountered financial difficulties, and is unlikely to be completed. The remaining MiGs are unserviceable and haven't flown for some time. The L-39Cs are also believed to be non-operational.

It is reported that all remaining fixed-wing transport aircraft have been transferred to the Council of Ministers and are no longer operated by the air force. Three Mi-8/17s are operated under direct control of Prime Minister Hun Sen's body guard unit.

AVRK and KhAF aircraft carried a variety of serial numbering systems, which were derived from the system applying in country of origin of the aircraft. The Fletcher Defenders carried a unique letter-number sequence which was not adopted on any other type.

Hardly any AFLKA serials are known - except for the Shenyang F-6s, which carried at least two different styles of serial presentation.

KPAF aircraft retained their former VNAF 4-figure serial numbers, or carried civilian XU-xxx registrations.

Current front-line RCAF aircraft carry a simple numerical individual number, eg: '25' for a L-39C or '7102' for a MiG-21UM. However, the majority of the air forces strength is made up of fixed-wing aircraft and helicopters used in the transport role. These carry civil registrations in the XU-xxx sequence. The state airline, Air Cambodia, also operates as a transport arm of the air force.

### **Cambodia Hosts 12th ASEAN Air Chiefs Conference on Cooperation and Coordination to Maintain Regional Stability**

(In SIEM REAP City, SIEM REAP province, September, 4<sup>th</sup> 2015)

It is meaningful and historical occasion for Cambodian Air Force (CAF) to host the 12<sup>th</sup> ASEAN Air Chiefs Conference (12<sup>th</sup>AACC) for the very first time, and it is remarkable because 2015 is the year of an establishment of ASEAN Community. Inevitably, wellbeing and prosperity could not be obtained without proper stability. Thus, the theme “Cooperation and Coordination to Maintain Regional Stability” of the

12<sup>th</sup> AACC would provide ASEAN Air Chiefs with a platform of information, discussion, contribution, and cooperation to deal with emerging security threats to the region, in particular counter-terrorism, and disaster relief operation. In a nutshell, we must promote the culture of mutual understanding and cooperation for the sake of regional peace and stability.





*12th AACC - Cambodian Air Chief Exchange View*

*“Cooperation and coordination to maintain the regional stability”*

**Good morning Distinguished Air Chiefs, Ladies and Gentlemen,**

It is great pleasure that we are gathered here to host an ASEAN Air Chief Conference, which I think it is an important event for us to meet and to discuss our common goal in terms of cooperation and coordination among ASEAN Air Forces, in order to build the mutual trust and confidence to obtain regional peace and stability. I would like also to take this opportunity to extend my appreciation to all ASEAN Air Chiefs and delegates for their fruitful contributing to this conference since the Cambodian Air Force officially announced to be the next conference organizer in Myanmar last year. The vision of “ASEAN - One Community 2015” comprising three pillars: Political-Security, Economic

and Socio-Cultural communities. Maintaining stability in the region is the ASEAN's expectation to build the solid foundation among its members as security pillar of the important aspect of the mutual cooperation.

Until now, several different themes were titled to the similar conference that hosted by the ASEAN Air Forces in sequences. But at this time the theme " Cooperation and Coordination to Maintain the Regional Stability" was chosen due to regional security environment and nature of the Air Force that is capable of providing rapid responses, long-range operations, mobility, high performance in rendering humanitarian assistance and disaster relief and supportive roles. Considering this Air Force's capability I would like to invite all of you here to join me to abstract the ideas that would have led to realization our mentioned theme.

### **Excellency, Ladies and Gentlemen**

Since the vision of the 2015 ASEAN One Community had been accepted by the ASEAN leaders in 2011, a lot of works had been done in order to meet this vision. One of those targeting points is the Political-Security pillar which will support our ASEAN community in the right way toward the prosperous community in the region. As we highlighted in the concept paper and scope for our conference this year, the ASEAN Air Forces would be an undeniable part to contribute in the process to fostering the stability and security of our ASEAN community. Thereby, my proposal will cover the broad ranges of cooperation and coordination among our Air Forces through which I believe it will help us to maintain the peace and stabilizer in our ASEAN community.

Talking about Asia, threats have become even more complicated and confused. Due to lack of mutual confidence, some

countries find themselves in the mire of “security predicaments” in one way or another. Asia also faces a series of traditional and non-traditional security challenges and some of them are quite conspicuous. Among them, many traditional and non-traditional security issues are mutually mingled together and one exerts influence over the other, thus leading to the emerging of new threats and new challenges. The nuclear issue is the use of high technology to wiretap communication worldwide etc. are heating up by involvement of some Big Powers and can easily invite new challenges to the stability and development of various countries in ASEAN. The ASEAN security concept underlines the need to jointly build security for the region by all countries on an equal footing. All of them are entitled to take part in regional security affairs equally and also duty-bound to ensure collective security of the region. No country is allowed to monopolize regional security affairs or to encroach on the legitimate rights of other countries.

**Ladies and Gentlemen,**

In my view, there are some measures that must be taken to stabilize the security environment in our region as following:

Cooperative security is to provide various countries in the region with security by means of dialogue and cooperation. It is based on the idea of inter-dependency and calls for insurance of security by peaceful means and by entering into political and security dialogue among the conflicting parties over security interests, thus protecting peace in the region and the world. In this sense, cooperative security is a comprehensive and common stability. Not only countries with the same view can sit together and talk, but also those countries with conflicting

views on security interests are able to get together and conduct security dialogue. So it is an active security with opening, inclusiveness and win-win result, consisting cooperation not only in traditional security areas, but also in non-traditional security areas, including political, economic, human rights and environmental protection.

- 1- To promote the confidence-building measures among ASEAN Air Forces by using the either current forum or other forms to create the foundation for all the ASEAN Air Forces to have a closer opportunity to learn from each other for every aspect. These measures should have also included the bilateral exchanging visit that for years has been conducting by some our ASEAN Air Forces, in those Cambodia with Thailand and we are attempting to do the same way with either Vietnam or other ASEAN Air Forces if it allowable. In the near future, I would like to conduct this kind of cross exchange visit, in which it will focus not only in their professional affairs but to include other aspects such as cultural and socio-economic activities. Other cooperation such as preparing for the joint search and rescue exercises for the Humanitarian Assistance and Disaster Relief (HADR) operations. Possibly, there may be other types of cooperation that each ASEAN Air Force will check within their current assets and capable to start their bilateral or multilateral action to help the mutual understanding in a sense of building trust relationship among us to make peace and stability in our region.
- 2- To share knowledge, experiences and related information among our Air Forces for more frequently, by any means, such



as conference, bilateral meeting and/or exchanging visit, workshop, symposium, seminar etc. These means should be applied to our yearly cooperation plan in order to enhance our knowledge and experience sharing effort. While the current AACC is the highest level of the ASEAN Air Force meeting, the other forums should be deepening to the operational and tactical level. The above proposal shall be in form if you wished of founding the new generation of the ASEAN Air Force's relationship, in fact, it will draw them into a closer understanding, mitigate their differences in terms of peace and stability.

- 3- In connection with the experiences sharing form I do believe that every Air Force must learn from each other in all aspects. Base on their verity historical development each ASEAN Air Force should take in to their compromising about the ASEAN Air Forces asset, resources, capacity building and capability there by it can help us to avoid the misunderstanding in term of cooperation and coordination.
- 4- The efforts of our ASEAN Air Forces to beef up the work in progress for producing the Standard Operational Procedure (SOP) for the future disaster research and relief operation in the ASEAN region play a very important role in our ambitious form of cooperation and coordination that not yet existed among the ASEAN Air Forces. The realization of the Standard Operational Procedure (SOP) and action that will be taken in to the Humanitarian Assistance and Disaster Relief operation of the ASEAN Air Force in the future will witness our commitment to

uphold the mutual trust and understanding among ASEAN Air Forces and partly maintain our peace and stability in the region.

**Ladies and Gentlemen,**

The Cambodian Air Force is fully supporting these activities because I do believe that our future closer cooperation will be the core to result our common challenges. We have talked a lot on the cooperation measures in the regional defense services forum such as today's conference, but to realize them into the reality is the question. In this case, I found that each Air Force should focus on their capacity building measures that may contribute to our present requirement. In my view these measures should be included the reducing of the training curriculum gap, the hardware equipment acquisition, to permanently establish the ASEAN Air Force Task Team (Working Group), to increase the number of exchanging visits and study tours for more frequently among our Air Forces etc. In my previous speech on the 11th AACC in Myanmar last year, I had expressed my supporting on the Standard Operational Procedure (SOP) creating proposal; this is because I do believe that our ASEAN Air Forces will primarily, use this document as the main legal clearance tool if you like, for all their pre-operation steps towards the Air Forces aircraft's free movement within our ASEAN airspace.

With my delighted expectation of the conference result that based on the fostering the “Cooperation and Coordination to Maintain Regional Stability” such an outcome would evidence well-developed levels of trust, interest harmonization and foreign policy coordination.

One again, I would like to convey my gratitude to you, my dear Air Chiefs, and your delegates for their past and current supporting this conference, without their efforts the today meeting will not happen. I wish this conference a success in achieving our common goal, the “Cooperation and Coordination to Maintain Regional Stability”, and may I wish you and your delegates and those who are presenting at this conference good health and success in every task assigned.

**To evaluate the situation of operating flight without full equipment belongs to the Air Force.**

After the National Election was held in 1993, the counterparts of armed disputes were integrated into the Cambodian Royal Armed Forces except Khmer Rouge group. The Air Forces and the counterparts of armed disputes were also integrated except Khmer Rouge soldiers. After the National Election, all air forces were merged. The air forces start to be trained including aviators and experts. At that time, there were not sufficient military equipment for serving the purposes of flight such as a radar for guiding all kinds of roads. At that time, the flight depends on the civil aviation which orders and leads until now. The radar control system was made by CATs investing in civil aviation. When the armed disputes took place, the aviation training was suspended. The training at that time focused on the flight of all kinds of airplanes including L-39, P-92. At that time, Cambodia also had the problems of insecurity as some areas were occupied by Khmer Rouge leaders. The wars between the troops of the government and Khmer Rouge soldiers existed until early 1999. Under the Win-Win policies of Samdech Techo Hun Sen, Prime Minister of Cambodia, the political and military issues ended. During that

time, the flight of air forces was very active and busy in transporting military equipment, food and troops. The flight of that time was faced by many technical problems, but the flight, fight and transport were safe because of the experience and ability of our aviators and exports.

Currently, although Cambodia is flying airplane MA-60 and helicopter Z-9, the Cambodian air forces still rely on the radar of CATs in the same way just by sending air forces to participating in checking with the company.

## **CHAPTER 4**

### **The Way how to rebuilding the new generations of Royal Cambodian Air Force after Khmer Rouge Regime fell down until now on for stable Kingdom of Cambodia**

#### **1. The Way how to rebuilding the new generations of Royal Cambodian Air Force after Khmer Rouge Regime fall down until now on for stable Kingdom of Cambodia**

The Air Force was reformed in 1979 and help was sought again in Russia. During the late 1970s and throughout the 1980s, the Khmer Rouge, armed and financed by China and Thailand (and with indirect US support), fought a guerrilla war against the Vietnamese-backed government in Phnom Penh.

In 1986 the Air Force bought 22 Russian MiG-21s to form Unit 701 at Pochentong. The MiGs serials consist of four digits starting with 71 (reflecting the date when Pol Pot was ousted; 7 January 1979). Unit 701 (the Fighter Squadron) was formed in 1986 to operate twenty-two MiG-21bis and MiG-21UM aircraft obtained from Russia. Its main roles are interception and ground attack. In 1989 Russian support for the aircraft was withdrawn. Due to a lack of spare parts and technical support, the MiGs were grounded after the last flight on 17 June 1992. Several aircraft were sent to Israel in 1996 for an upgrade, but the contract was cancelled after only two aircraft had been completed and the MiGs remain stored in the open at Pochentong. As part of the upgrade deal six Aero L-39C Albatros aircraft were overhauled by IAI and delivered in 1996 to the Fighter Squadron. Operations with the MiGs didn't last long as help from Russia stopped in 1989 and the lack of spare parts and support finally grounded the MiGs with the last flight on 17 June 1992.

A Helicopter Squadron was formed in 1992 with a number of Mi-8 and Mi-17. After the UN monitored general elections of 1993 Norodom Sihanouk was re-instated as king. The present name of Royal Cambodian Air Force was adopted and a new roundel was introduced. After all the changes of government each time a new flag and roundel were introduced but they all had in common a variation of the Angkor temple. Two Harbin Y-12 and three BN-2 Islander were taken in service to back the three former Kampuchea Airlines An-24RV and Beech 200 of the VIP Squadron in 1993. To fulfil the need of training its own pilots six Tecnam P92 Echo 3 trainers were ordered in Italy. After delivery they formed the newly established Reconnaissance Squadron in 1995.

In 1996 a deal was made with Israeli Aircraft Industries for the overhaul of 12 MiG-21s and part of the deal was the acquisition of six overhauled Aero L-39C Albatros'. These Czech built trainers were delivered to Cambodia in 1996-97. The World Bank and especially the US cut direct foreign aid to Cambodia in mid 1997 after Hun Sen ousted coalition partner Prince Norodom Ranariddh. This also affected the RCAF deal with Israel as already four MiG-21s were sent to the IAI Lahav division and Cambodia was unable to pay for the work. Also in 1997 the VIP Squadron was taken out of the Air Force and put under governmental control in the Council of Ministry and took with it the Beech 200, Ce402 and Ce421. France donated two AS350B Ecureuils, an AS365 Dauphin, a Falcon 20 and a Fokker F28 for VIP transport. All this left the Air Force with the regular transport aircraft of two An-24RV, two Harbin Y-12 and two Islanders and they formed the Transport Squadron. In 1998 the Ministry of Defense obtained two Mi-26 helicopters flown by

pilots of the Helicopter Squadron. Eventually these helicopters were transferred to the Air Force.

In February 2000 a MiG-21bis (7102) and MiG-21UM (7114) returned from Israel after being overhauled. Due to lack of money and skilled personnel it is doubtful if these planes have flown since. In 2012 and 2013 after many years and with assistance from China the Air Force was able to get new equipment with the delivery of two MA60 transport aircraft and twelve Z-9 helicopters.

All the aircraft of the Air Force are based at Phnom Penh Airbase, formerly known as Pochentong airbase. As a poor country, the RCAF's transformation will be a challenge for Cambodia without foreign assistance: "The RCAF must continue to strengthen and expand cooperation with the partners in the region and in the international arena by using bilateral and multilateral mechanisms based on unbiased political or ideological grounds and in the spirit of mutual interests." The RGC stresses on the importance of comprehensive cooperation in bilateral and multilateral frameworks in order to develop the RCAF's professionalism.

The RCAF must increase an in-depth cooperation with the partner countries to ensure the sustainability of scholarship offers and other skill courses to develop human resources. Efforts should also be made to seek other support for the defense force. The exchange of study tours, military students and intelligence information should be increased. Protocols, conventions, memorandums of understanding, agreements, joint statements, joint training exercise programs should all be expanded

including humanitarian assistance and disaster relief, maritime security, peacekeeping operations.

The RCAF must continue to cooperate with the partner countries in the framework of multilateral mechanisms, seminars and training exercises, internally and externally, to increase capabilities to jointly strengthen regional security, especially peacekeeping operations (demining, engineering, policing), counter terrorism, maritime security, humanitarian assistance and disaster relief (health and civil engineering), etc., and to enhance the prestige of the Kingdom of Cambodia in the international arena.

## **2. To Prepare and Readiness Royal Cambodian Air Force to participate in HADR Mission among ASEAN Air Forces**

The Royal Cambodian Air Force already prepared for the participant in mission of HADR among ASEAN Air Force accordingly to the SOP of the ASEAN AIR FORCE that it had conducted the conference many time during the ASEAN Air Chiefs Conference (AACC) and ASEAN Air Force Education and Training (AAFET) in Malaysia and Philippine 2017.

(The Standard Operating Procedure for Humanitarian Assistance and Disaster Relief (AAF SOP-HADR) , (Detail in Appendix)



## **CHAPTER 5**

### **Conclusion and Recommendation**

#### **Recommendations**

Air war is a very effective war which can destroy the target area in a quick and timely manner and it is a war which costs a lot of money, and does not need to spend forces. Currently, the use of air forces for waging a war is popular amongst the world's big powers full of military weapons because this way can benefit a lot to succeed.

The evolution of modern technology for equipping the military sector for developed nations is diversified. While there is an increase in modern technology, the human resources for using the modern technology also increase, and the government also spends a lot for this sector. Most air forces are the learners of modern technology equipped with the air forces and those people also need to be fully qualified to use and maintain the technology sustainably to implement daily work except the expiration. To ensure the sustainability of safety of territorial air, the use of modern technology of the air forces evolves according to the regional and global situation in order to protect sovereignty and territorial integrity of the country and prevent terrorism.

To obtain the sovereignty and territorial integrity of one nation, it not only has good diplomatic policies and foreign relationship, but also has strong human resources and modern technology and equipment for preventing the violation of unfriendly forces from “cold” or “hot” politics.

To respond to the regional and global situation, each nation must make its best effort to spend a lot of budget purchasing military weapons as well as modern technology for the national defense sector. Therefore, our national defense is limited and the training of new intellectuals for the national defense does not respond to the current and global situations, particularly in the ASEAN community.

For the national defense sector to catch up with the regional and global situations, Cambodia must try to better develop the national economy in line with the rectangular strategy of the Royal Government of Cambodia. The development of one national economy is better as it depends on the national security and stability. Therefore, the national defense sector is responsible for those issues. To safeguard the national security and stability, the Government must spend money purchasing modern military equipment for the Royal Armed Forces as well as the air forces to ensure sustainability.

The social stability will spur the economic growth to catch up with international markets. Moreover, we can properly use natural resources such as all kinds of mines available in the country according to the situation of global economy. In particular, we must jointly consolidate national politics and build a culture of peace and respect of national constitution.

## **Conclusion**

The RCAF is in the process of transforming into a professional armed force that is outward-looking. The security outlook of the

Kingdom of Cambodia has changed due to the evolving regional and global security environment. In the current external environment, the RCAF has played an increasingly important role as the leading force to support the nation's strategic objectives and in implementing national policy. Defending the sovereignty, independence, and territorial integrity of the country from external invasion and transnational threats, and contributing to national stability, safety, and security are primary roles of the RCAF. As part of its international obligations, the RCAF has a strong commitment to combating terrorism and participating in peacekeeping and humanitarian missions.

Cambodia is in need of assistance from friendly countries to actualize its RCAF reform program as elaborated in the Cambodian defense documents. As a small and poor state in the region, Cambodia usually makes practical choices for its people by seeking to capitalize on its relations with China, the US, and any other countries that may suit its interests.<sup>18</sup> Therefore, the RGC should strengthen military cooperation with friends. Different friendly countries bring different defense cooperation to the improvement of Cambodia's military professionalism. For example, the US has provided support in a wide range of military cooperation areas to improve RCAF's capability in humanitarian assistance, peacekeeping, maritime security, and in broadening Cambodia's counterterrorism strategy. The RGC should also develop an effective military defense cooperation plan that provides priority areas for international assistance. This will lead to effective international military cooperation.

## **Bibliography**

Royal Cambodian Air Force Document.12<sup>th</sup> ASEAN Air Chief  
Conference (SOP) .Cambodia Defense White Paper. 25<sup>th</sup>  
November, 2013 (Zhi-9 Delivery).

[www.globalsecurity.org/military/world/cambodia/air-force.htm](http://www.globalsecurity.org/military/world/cambodia/air-force.htm)

[www.aeroflight.co.uk/waf/aa-eastasia/cambodia/cam-af-home.htm](http://www.aeroflight.co.uk/waf/aa-eastasia/cambodia/cam-af-home.htm)

[www.globaltime.cn/content/827426.shtml](http://www.globaltime.cn/content/827426.shtml)

## **Appendix**

**THE STANDARD OPERATING PROCEDURE FOR  
HUMANITARIAN ASSISTANCE  
AND DISASTER RELIEF  
(AAFSOP-HADR)**

**ASEAN AIR FORCES STANDARD OPERATING  
PROCEDURE FOR  
HUMANITARIAN ASSISTANCE  
AND DISASTER RELIEF**

## **PREFACE**

The Purpose of this document is to provide the guiding principles and standard procedures which ASEAN Air Forces can rely on for the effective conduct of Humanitarian Assistance and Disaster Relief (HADR) operation. It aims to guide the ASEAN Air Forces cooperation during emergency situations, and provides the fundamental requirements and protocols to be taken into account in assisting the affected neighboring countries in the region.

This SOP is intentionally broad and generic in nature to allow for flexibility in its application. It provides:

1. The principles and guidelines in initiating the combined HADR and emergency response operation.
2. The procedures for the facilitation and utilization of military assets and capabilities during HADR operation.

This document takes reference from the Standard Operating Procedure for Regional Standby Agreements and coordination of Joint Disaster Relief and Emergency Response Operation (SASOP), under the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) Framework. This SOP is not a binding agreement among the participating nations and it does not bear any commitments or obligations on or among participating nations. This SOP represents a broad inclusion of doctrines, operating norm, lessons learned and suggestions from the ASEAN Air Forces.

## **DEFINITION OF TERM**

This section lays down the different technical terms and acronyms used in the document, with their corresponding meanings, adopted from various sources recognized internationally, particularly in the ASEAN community. Some of these sources include the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) and Standard Operating Procedure for Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operations (SASOP), to name a few.

**Affected State** – the state whose territory, persons, or properties, are affected by a disaster. Also termed as Requesting / Receiving party.

**Assisting Air Force/State** – the Air Force/State providing disaster relief or initial recovery assistance, whether through civil or military components.

**Disaster** – This is a serious disruption of the functioning of society, and poses a significant, widespread threat to human life, health, property or the environment, whether arising from accident, nature or human activity, whether developing suddenly or as the result of long-term processes.

**Disaster Relief (DR)** – means goods and services provided to meet the immediate needs of disaster-affected communities.

**Humanitarian Assistance (HA)** - Humanitarian assistance consists of activities conducted to relieve or reduce human pain, disease, hunger, or privation created by conditions that might present a serious threat to life or that can result in great damage loss of property.

**Transit State** – the State through whose territorial jurisdiction disaster relief and initial recovery assistance passes on its way to or from the Affected State in connection with disaster relief or initial recovery assistance operations.



## ACRONYMS

ASEAN – Association of the Southeast Asian Nations: Geopolitical and economic organization of 10 Southeast Asian nations, which have agreed to cooperate regionally between member states politically, economically and socially.

AADMER – ASEAN Agreement on Disaster Management and Emergency Response: A regional frame work signed by the 10 ASEAN Member States to promote regional cooperation towards a disaster-resilient ASEAN community. AADMER sets in place regional policies, operational, and logistical mechanisms to enable ASEAN member states to seek and extend assistance in times of disaster and carry out collaborative under takings on disaster mitigation, prevention, preparedness, response, recovery, and rehabilitation.

AHA Centre – ASEAN Coordinating Centre for Humanitarian Assistance: Located in Jakarta, Indonesia, the AHA Centre receives and consolidates disaster analysis data and recommendations on risk level from the National Focal Points of ASEAN states. It is also the function of the AHA Centre to disseminate to each party, through the NFPs, the analysed data and risk level arising from identified hazards, and may also conduct analysis, when appropriate, on regional-level implications.

MNCC – Multi-National Coordinating Centre : The primary purpose of MNCC is to facilitate military to military cooperation and coordination between the military Joint Task Force (JTF) / Combined Task Force (CTF) in support of the NDMO and regional and local disaster management agencies to help achieve unity of effort in disaster response.

NFP – National Focal Point: An entity designated and authorized by each member state to receive and transmit information pursuant to the provision of the ASEAN Agreement on Disaster Management and Emergency Response (AADMER).

## **AAFSOP-HADR / CHAPTER I**

### **PRINCIPLES FOR COOPERATION IN HADR**

SOP for Utilization of Military Assets for HADR Under The Framework  
Of AADMER.

1. Principles. In the event requiring cooperation among ASEAN Air Forces during HADR operations, the following principles must be adhered to:

1.1. The sovereignty, territorial integrity and national unity of Member States must be fully respected.

1.2. Participation of Air Forces of Member States in HADR operations shall be of flexible, voluntary and non-binding nature within the limits of their capabilities.

1.3. ASEAN Airforce military assets and personnel involved in HADR operations shall remain under their own national command and control.

1.4. Comply with the customs, rules and the law of the Affected State.

1.5. Pave the way for civilian agencies to take over the operations.

1.6. Based on request by or consent from the Affected State.

1.7. Put the humanity principles and dignity as a primary goal, without distinction of politics.

1.8. Disaster management principles shall be implemented on the basis of:

1.8.1. Being quick and appropriate;

1.8.2. Priority;

1.8.3. Coordination and integrity;

1.8.4. Efficiency and effectiveness;

1.8.5. Transparency and accountability;

- 1.8.6. Partnership;
- 1.8.7. Empowerment;
- 1.8.8. Nondiscrimination; and
- 1.8.9. Non-proselytism

1.9. Coordinate with the National disaster management authorities, emergency operation centers and the AHA Centre.

2. Roles and Functions. The Roles and functions of ASEAN Air Forces involved in HADR operations are as follows:

2.1. Roles and Functions of Military / Air Force from (of) Affected State. The Air Force of the Affected State shall liaise with the respective governments to undertake the following responsibilities :

2.1.1. Shall cater to the needs of the affected victims of disaster within their sovereign territories.

2.1.2. Shall be responsible in initiating, organizing, coordinating, implementing, regulating and monitoring disaster relief assistance, to include international assistance, within its territories.

2.1.3. Shall consider assistance from international community upon request or when offered.

2.1.4. Shall develop an Air Force level implementing plan aligned with its existing national disaster plan.

2.1.5. Shall be responsible for determining the needs based on information provided by local, provincial and other foreign assistance, utilizing international coordination mechanisms to make best use of incoming assistance, including foreign Air Force assistance.

2.1.6. Shall coordinate with relevant agencies or offices for the facilitation of requirements relative to the entry, movement, and departure of Assisting Air Forces.

2.2. Roles and Functions of Assisting Air Force. Roles and Functions of Assisting Air Force shall comprise the following :

2.2.1. Shall deploy the assets only with the consent of the Affected State to support the immediate needs that may arise.

2.2.2. Shall provide humanitarian disaster relief assistance according to the core Humanitarian Principles of Humanity, Neutrality and Impartiality.

2.2.3. Shall coordinate its disaster response operations with the Affected State in accordance with the national disaster plan.

2.2.4. Shall indicate the terms and conditions under which the contributed assets and capabilities shall be deployed, to ensure the

protection and address particular needs of women and children from gender perspective.

2.2.5. Shall conform to the arrangements of the Affected State, regarding the terms and conditions for the deployment of assets, including the details of the resources to be mobilized, transportations arrangements, exemptions and facilities, logistic support, and funding arrangements.

2.2.6. Shall be self-supporting for the duration of their mission in terms of transport, fuel, food rations, water and sanitation, maintenance and communications, in order to minimize additional stress on the overburdened Affected State.

2.2.7. Shall provide disaster relief without seeking to:

2.2.7.1. Gain financial reimbursement.

2.2.7.2. Further apolitical or religious view point.

2.2.7.3. Intervene in the internal affairs of the Affected State.

2.2.7.4. Gain a commercial advantage; and

2.2.7.5. Gather sensitive political, economic and military information irrelevant to the disaster assistance.

2.3. Roles and Functions of Transit States.

Within the ASEAN community, Transit States should facilitate the movement of disaster relief equipment, supplies and personnel from the Originating and Assisting Air Forces to the Affected State.

## **AAFSOP-HADR / CHAPTER II**

### **AREAS OF ASSISTANCE**

3. Areas of Assistance. Areas of Assistance by the ASEAN Air Forces can be divided into three broad categories:

3.1. Direct Assistance - the face-to-face distribution of goods and services.

3.2. Indirect assistance – is at least one step removed from the population and involves such activities as transporting relief goods or relief personnel, and

3.3. Infrastructure Support – involves providing general services, such as road repair, airspace management and power generation that facilitate relief efforts.

4. Forms of assistance. There are other forms of assistance that may be rendered by Assisting Air Forces in support of HADR operations namely :

4.1. Security. Assisting Air Forces may provide security for camps or temporary evacuation/resettlement areas, medical facilities, facilities for information disseminations and also security of storage facilities as well as providing security for convoys delivering emergency aids.

4.2. Relief. Assisting Air Forces may play a vital role in assisting or facilitating the Affected State government in its dissemination or relief information and includes prompt aid to prevent the loss of life, destruction of property and to alleviate the suffering of the disaster victims

4.3. Affected Population Support. Assisting Air Forces may support the return or resettlement of the affected population. If required to exercise this type of mission, Assisting Air Forces should use the services and facilities of the Affected State, civilian agencies and the Humanitarian community.

4.4. Technical Assistance. Assisting Air Forces should implement procedures and set priorities regarding technical advice and assistance to the affected area and relief agencies as soon as possible. These technical assistance policies should clarify the assistance provided as well as the source of authority for such assistance.

## **AAFSOP-HADR / CHAPTER III**

### **ASEAN AIR FORCES AND CAPABILITIES**

#### **5. Missions & Capabilities**

The Inventory of Assets from Assisting States may include procurement of goods and/ or services for:

5.1. MEDEVAC (Medical Evacuation)

5.2. Airlifts / Airdrops / Resupply (Supply/Delivery of food & Clothing and health services)

5.3. SAR (Search and Rescue) / SAL (Search and Locate)

5.4. Military Medicine (Emergency Aid)

5.5. Aerial Survey

5.6. Cloud Seeding / Rainmaking

5.7. Aerial Fire Control / Fighting.

5.8. Special capabilities.

5.9. Mobile Air Traffic Control.

5.10. Mobile Air Movement Team.

6. Assets of ASEAN Air Forces for HADR Operations. On a voluntary basis, each ASEAN Air Force may identify and provide a description of their capabilities and assets that may be used for HADR. There is no obligation for the ASEAN Air Force to deploy all or any of their assets. The decision to activate and deploy any specific assets in a HADR operation is subject to the prerogative of the assisting ASEAN Air Force.

7. Assessments. The Military/Air Force of the Affected State shall conduct its assessments of HADR requirements prior to the utilization of the assets from the Assisting Air Forces with the following considerations:

7.1. Assessment conducted by the Assisting Air Forces should be shared with other actors. Likewise, the Assisting Air Force's response to any request for assistance, should be coordinated with other Assisting Air Forces through the respective NFPs to AHA Centre to minimize duplication, confusion and gaps in support. Combined military

assessments, including participation of Affected State assessments if possible, are strongly recommended.

7.2. Assisting Air Forces should leverage on such expertise to provide a better assessment of the ground situation in order to determine the specific types of assistance required.

7.3. Planning should be conducted at the earliest opportunity with the initial assessment in order to ensure that HADR could be rendered to the Affected State without unnecessary delays.

8. The use of air assets from the Assisting Air Forces should be the last option, with the following considerations:

8.1. There is no comparable Affected State or civilian alternative available to support the needs.

8.2. The need for the specific Assisting Air Forces assets to meet a critical HADR requirement; and

8.3. Use of Assisting Air Forces assets must be needs-driven, complimentary to, and coherent with HADR operations and respecting the role of the Affected State. Thus, it is likely that the Assisting Air Forces assets would be unique in capability and availability.

9. On-site Deployment of Assets. Coordination for the deployment of the Assisting Air Forces' asset and capabilities must be conducted in detail, to support the on-going HADR operations. The Affected State shall provide, to the extent possible, local facilities and services for the proper and effective administration of the assistance.

## **AAFSOP-HADR / CHAPTER IV**

### **POINT OF CONTACTS (POC)**

10. Government Level. At Government Level initial contact to conduct planning and coordination - AIR/DEFENCE ATTACHE

11. Air Force Level. Air Force Level POC for initial contact to conduct planning and coordination.

11.1. Royal Brunei Air Force: DefenceAttache POC:  
 AOC (Air Operation Centre) +6732348444, +6732348408, +6732348417  
 Tel : +6732396037 (fax) E-Mail : [aoc@mindef.gov.bn](mailto:aoc@mindef.gov.bn) SO2A3:  
 +6738758534 SO3 A3 : +6738980064

11.2. Royal Cambodian Air Force: DefenceAttache POC:  
ASEAN Affair Department Operation office of Cambodian AF

Tel: + 855 972272496, + 855 99999647 E-Mail:  
[cafop@yahoo.com](mailto:cafop@yahoo.com)

11.3. Indonesian Air Force: DefenceAttache POC:  
Indonesian Air Force Headquarters Staff Operation Office And foreign  
relations office Cilangkap Jakarta HQ (Office of foreign relations) Tel  
&Fax: +62-218714176 (fax: +62218714533) E-Mail:  
[hublu\\_au@yahoo.com](mailto:hublu_au@yahoo.com) and [pabanduaops@gmail.com](mailto:pabanduaops@gmail.com)

11.4. Lao PDR: DefenceAttache POC: Foreign Relations  
Department, MOD. Tel :(+ 856) 21911054 Fax :(+ 856) 21911058

11.5. Royal Malaysian Air Force: DefenceAttache POC:  
Assistant Chief of Staff – A3 Air Force Operations Centre, Air  
Operations Command Headquarters, C/O Kuala Lumpur Airbase  
50634 Kuala Lumpur Malaysia Tel : + 603-21487763  
E-Mail : [potu\\_atoc@yahoo.com](mailto:potu_atoc@yahoo.com)

11.6. Myanmar Air Force: DefenceAttache POC: Office of  
the Chief of Military Security Affair (OCMSA) Tel : 036-31641, 036-  
31642 Fax : 067-416076 E-Mail :  
[Pyipa.relation.ocmsa@gmail.com](mailto:Pyipa.relation.ocmsa@gmail.com) Operation & Research Department,  
Office of Commander in Chief (Air) Tel: 036-30684, 036-30685  
Fax : 036-30691 E-Mail : [mafoprs@gmail.com](mailto:mafoprs@gmail.com)

11.7. Philippine Air Force: DefenceAttache POC.: Air  
Force Operation Center Tel: (+63) 8546701 ext 6233, 6533, 6433  
Fax: (+63) 8515007 Email: [afoc.admin@paf.mil.ph](mailto:afoc.admin@paf.mil.ph) and  
[afoc\\_a\\_3@yahoo.com](mailto:afoc_a_3@yahoo.com)

11.8. Republic of Singapore Air Force: DefenceAttachePOC:  
Air Operations Centre (AOC)  
E-Mail: [mindef\\_air\\_ops\\_centre@mindef.gov.sg](mailto:mindef_air_ops_centre@mindef.gov.sg) Tel:(+65)  
67683721

11.9. Royal Thai Air Force: DefenceAttache, POC: Air  
Operations Center, Tel:(+66) 5341700 ext.13, E-Mail:  
[codr\\_rtaf@hotmail.com](mailto:codr_rtaf@hotmail.com)



11.10. Vietnam Air Force: DefenceAttache , POC : Foreign Relation Division (Air Defence and Air Force of Vietnam), Tel : + 8435659491, + 84983209716, E-MAIL :[phongdoingoaipkkq@gmail.com](mailto:phongdoingoaipkkq@gmail.com)

## **AAFSOP-HADR / CHAPTER V**

### **OPERATIONAL SAFETY**

12. Management of safety. All ASEAN Air Forces in HADR operation shall adhere to their respective safety management procedures.

13. General Safety:

13.1. Risk management. All ASEAN Air Forces in HADR operation shall adhere to their respective risk management procedures. However, The Affected State Air Force may develop guidelines to facilitate common understanding.

13.2. Emergency and Accidents/Mishap. For Aviation and Non-Aviation Emergency and Accident/Mishap:

13.2.1. Affected State Air Force shall provide immediate site security and medical assistance/evacuation.

13.2.2. If the Affected State has the limitation of medical capability, the Assisting State Air Force shall extend medical/evacuation assistance.

13.2.3. The Affected State Air Force shall facilitate the investigation with the assistance of the Assisting State Air Force.

13.2.4. Affected State Air Force shall provide assistance for the recovery of damaged assets and determine its storage point.

13.2.5. In the event that Affected State Air Force has limited capability on the investigation requirements, the Assisting Air Forces may extend their expertise but shall provide report to the Affected State Air Force.

14. Flight Safety. All Assisting Air Forces should consider the following safety areas during their HADR operations:

14.1. Mission Planning and Flight De-confliction. Prior to the execution of the HADR mission, the Assisting Air Force should conduct detailed planning of the assigned mission. They should submit the mission details and flight routes to the Affected State Mission Coordinator for flight de-confliction.

14.2. Fatigue from missions, All Assisting Air Forces must adhere to the stipulated crew rest regulations and operate within the aircraft limitations and capabilities.

14.3. Airspace safety management.

14.3.1. The Affected State Air Force is responsible for the control of airspace in the area of operations.

14.3.2. In the event that the Affected State has limited capability in the control of airspace, the Assisting State may offer their expertise and provide the necessary support.

14.4. Standard language for communication. During HADR operation, Standard ICAO air traffic phraseology shall be used.

15. Ground safety:

15.1. Personal healthcare.

15.1.1. Affected State shall provide medical assistance / evacuation.

15.1.2. If the Affected State has limited medical capability, the Assisting Air Forces may offer the necessary medical/evacuation assistance.

15.2. Fire Emergency. The Affected State Air Force shall provide appropriate Fire-fighting equipment in all flight operations area (eq. fire retardant chemicals, water, PPEs etc.). If the Affected State Air Force has limited fire-fighting capability to cover all areas of flight operations, the Assisting Air Forces should support their own fire-fighting requirements.

15.3. Driving in the operational areas. The Assisting Air Forces ground vehicle shall be used only for operation. The Affected State Air Force may provide security and vehicle escort to the Assisting Air Forces when situation dictates to travel outside the base.

16. Force Protection and Security:

16.1. Affected State shall provide immediate site security for the deployed Assisting Air Forces.

16.2. Assisting Air Forces shall be responsible for the safety and welfare of their deployed forces, assets and properties throughout the operations. They should also engage the local community and maintain Situational Awareness.

## **AAFSOP-HADR / CHAPTER VI**

### **ADMINISTRATION AND LOGISTICS**

#### 17. Administration.

17.1. Liaison Officers. The Affected State will assign Liaison Officers to facilitate and coordinate the administrative and logistics requirements of the Assisting States.

#### 17.2. Diplomatic clearances

17.2.1. The Assisting State Air Forces need to get diplomatic clearance from the Affected State expeditiously.

17.2.2. The Air Force level POC's should assist in the early notification of such requests to expedite the process.

17.3. SASOP Forms for the Request and Offer of HADR Assistance.

17.3.1. Annex A : Form 3 for Assistance Request and

17.3.2. Annex B : Form 4 for offer of assistance

17.4. Cooperation with the media. To accommodate media in Military base area, the Affected State may set up a joint media center to manage the local or foreign media. Communication guidelines will be provided by the public affairs agency of the Affected State.

17.5. Customs, Immigration and Quarantine (CIQ). The Affected State shall in accordance with its national laws and regulations, accord the Assisting Air Force adequate measures to ease and expedite its

entry into, stay in and departure from its territory of personnel, equipment, facilities and materials involved or used in HADR operations.

17.6. Legal Coverage. The legal provisions shall cover all representatives of participating states, civilian and military at all times from the moment of entry to the Affected State's territory up to the moment of departure thereof. The legal coverage does not extend to military ships, aircraft, and designated areas but remain on the sole jurisdiction of the respective participating states.

17.7. Airworthiness of Aircraft and Equipment. It shall be the responsibility of the Assisting Air Force to ensure the airworthiness, serviceability and safety of their deployed equipment, aircraft and/or any assets deployed to provide HADR operations.

## 18. Logistics.

To ensure the effective and timely response of assistance, the Assisting Air Force must coordinate with the Affected State for the immediate response of the standby assets and capabilities. The Assisting Air Forces shall also ensure that they are self-sufficient with their subsistence requirements in the course of operating within the Affected State's territory.

18.1. The Assisting Air Forces shall retain the same Registration Plate/Identity for all Equipment for the HADR operations.

18.2. For the purpose of entry and departure from the territory of the Affected State, deployed members of the Assisting Air Force shall be required to possess:

18.2.1. An individual or collective movement order issued under the authority of the Assisting Air Force;

18.2.2. A personal identity card issued by the appropriate authorities of the Assisting State.

18.3. Aircraft and vessels deployed by the Assisting Air Force personnel may use its registration and easily identifiable license plate without tax, licenses and/or any other permits. All authorized foreign military aircraft will be treated as friendly aircraft and will receive open radio frequencies and Identification Friend or Foe (IFF) by the Affected State authorities.

18.4. Logistic Support. Assisting Air Forces as far as possible, are to be self-sustaining throughout the duration of the HADR operations in terms of and not limited to transport, fuel, food rations, water and sanitation, maintenance and communications. The Affected State may provide assistance as available.

## **AAFSOP-HADR CHAPTER / VII**

### **COMMAND AND CONTROL**

19. Multi-National Coordination Centre (MNCC). Affected State will setup the MNCC. Within the MNCC:

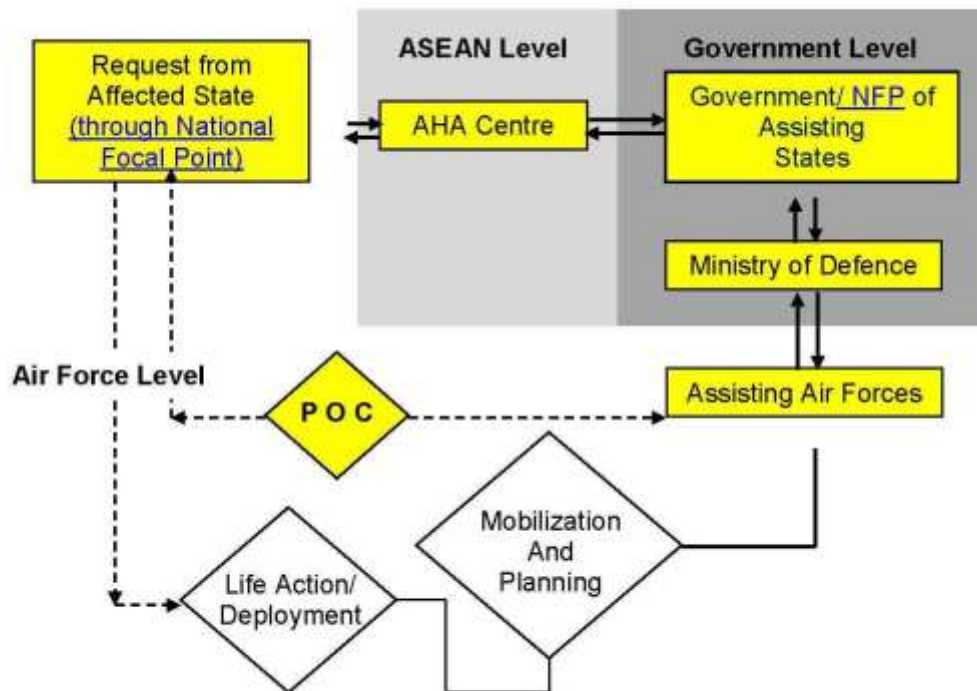
19.1. On-site Air Coordination Centre (ACC)

19.2. Led by Affected State's Mission Coordinator

19.3. ACC provides Mission briefings and Flight scheduling

#### 19.4. ACC conducts Daily Update Briefings

#### 20. Model Operational Rhythm.



*Note : Coordination and Procedure in the Government level varies from each other*

21. Command Relationships for military support. To control military mission during HADR operations, there are three type of command relationship for military support:

21.1. Operational Control. Operational control (OPCON) is the command relationship to organize and employ forces, assign tasks, designate objectives, and give authoritative direction necessary to accomplish the mission. It does not involve direction for logistics or matters of administration, discipline, internal reorganization of a nation's units, or unit training.

21.2. Tactical Control. Tactical Control (TACON) is command relationship limited to detailed control of movements or maneuvers in the operational area necessary to accomplish assigned missions or tasks.

21.3. Support. Support is a command relationship established by a higher commander or authority between subordinate commanders when one organization should aid, protect, complement, or sustain another force.

## **AAFSOP-HADR CHAPTER / VIII**

### **COMMUNICATION**

22. Affected State ACC will coordinate the operating frequencies and IFF codes to facilitate the Assisting Air Forces assets operations.

23. The effective communications systems in HADR operations is essential to:

23.1. Support operations, logistics, and intelligence functions

23.2. Allow commanders to command and control forces

23.3. Support communication of directions, orders, and information

23.4. Facilitate the coordination with agencies, disseminate meeting schedules, de-conflict Aircraft movement, and track logistics flow

24. ACC will also organize the communication network, as follows:

24.1. Data Network

24.2. Internet Based Network

24.3. Radio Network

24.4. Civil Aviation Radio/Network for Air Coordination

24.5. Maritime Radio/Network for Maritime Coordination

24.6. Telephone, Fax and Satcom to supplement communications

25. The Assisting Air Force should be self-sufficient in their respective communication requirements. Except for the operating radio frequencies where the Affected State Air Force will assign appropriate frequencies based on the requirements submitted by the Assisting Air Forces.

## **AAFSOP-HADR CHAPTER / IX**

### **FORCE INTEGRATION TRAINING**

26. To attain the effectiveness and efficiency of HADR operations, ASEAN Air Forces must overcome communication challenges and improve interoperability by carrying out training. Trainings are conducted to serve on the purpose and the objectives of the ASEAN Air Forces HADR operations. They are conducted to achieve the maximum efficiency in attaining the individual and collective training objectives while improving joint capabilities, in order to carry out the assigned tasks.



27. Force integration training (FIT) is a period of training designed to integrate a group of individual and/or units so that they can operate more cohesively and effectively as Task Group/Force. FIT will be conducted to enhance interoperability among the participating nations. This will be conducted and managed by respective military services, involves equipment familiarization, operational procedures and safety.

28. This Integration Training can be done through :

28.1. Conferences. It is a discussion conducted by personnel from ASEAN Air Forces with regards to HADR operation involving procedures, Planning and activity for the next exercise being planned.

28.2. Table Top Exercise (TTX). An activity where key personnel assigned with emergency management roles and responsibilities are gathered to discuss, in an on-threatening environment, various simulated emergency situations.

28.3. Command Post Exercises (CPX). It is a medium-overhead training exercise that may be conducted in ACC or in the field for training about planner, coordination; synchronize over operation during mission execution.

28.4. Field Training Exercise (FTX). FTX is a training exercise conducted under simulated HADR conditions in the field, where the troops and equipment of one party are present wholly or in part while the opposing party is either imaginary or represented by only a few troops and pieces of equipment.

29. The details of planning for FIT will be produced according to the different types exercise.

30. Training for the ASEAN Air Forces' HADR operations may include the following:

- 30.1. ROE.
- 30.2. Regional Orientation.
- 30.3. Medical.
- 30.4. Legal Aspects.
- 30.5. Multinational Considerations.
- 30.6. Negotiation and Mediation Training.
- 30.7. Unique Skills.
- 30.8. Media Awareness.
- 30.9. Lessons Learned.
- 30.10. Situational Training Exercises.

31. English language will be used as medium of instruction during FIT. Participating States should include English Interpreter to facilitate the operational requirements as required.

## **AAFSOP-HADR CHAPTER / X**

### **MANAGEMENT OF THE DONATED AID**

32. Affected State need to identify immediate staging base(s) to store the donated aid in order to avoid congestion at the destination airfield logistics system.

33. Aid should be classified as Perishable/Non-Perishable/Construction supplies/Fuel etc by Assisting States.

34. The Affected State point of contact will identify the person or party at the destination Airfield to receive the aid.

## Biography

Sure Name : **YEM**  
 Given Name : **BUN RETH**  
 Sex : Male  
 Age : 52  
 Nationality : Cambodian  
 Religion : Buddhism  
 Date of Birth : February 03<sup>rd</sup>, 1965  
 Marital Status : Married  
 Place of Birth : Sangkat № 5, Phnom Penh City  
 Current Address: #40E0, Street Mony Reth (271), Group 42,  
 Village10, Sangkat Toul Svay Prey II, Khan  
 Chamkarmon, Phnom Penh City

Blood Type : A

**Join Military Service** : 15<sup>th</sup> November 1983

ID Card Number : 010 425671, 9<sup>th</sup>11<sup>th</sup> 6933

Passport Number : S 0011844

Rank : Brigadier General

Function : Deputy Chief of Commissioner of  
operation

Service Number : 018339

**General Education** : Bachelor degree, Master degree of  
Political Science

### **\*Military Education**

From 28-10-83 to 30-10-86 : USSA (Military Aviation College) Frunze  
City of KIR KISTAN REPUBLIC

From 24-11-94 to 30-03-96 : Flying School in Cambodia

From 16-02-04 to 07-05-04 : Squadron Officer School Course in  
Malaysia

From 15-01-05 to 10-11-05 : “Command and Staff” Cambodia Military  
Institute.

From 09-Jan to 17-Mar-2006: College of Security Studies Honolulu,  
Hawaii (USA)

Year 2011: “Diploma of National Defense” N D U in Cambodia

Year 2017: National Defense College of Thailand.

**\*Military Rank**

1983-1986	: Study in USSR
1987	: Second Lieutenant
1989	: First Lieutenant
1991	: Captain
1993	: Major

**Reforming RCAF’s Rank**

1998	: First Lieutenant
2000	: Captain
2003	: Major
2006	: Lieutenant Colonel
2009	: Colonel
2017	: Brigadier General

**\*Military Professional** : Technician, Pilot P-92 and use to fight  
L-39

**Decoration**

-National Defense Medal : Gold, Silver, Bronze

-Medal of Labor : 2 gold, 1 bronze

- Royal order of Cambodia Chevalier : Two
- Royal order of Cambodia Officer : One
- Royal order of Cambodia Grand Cross : One

**Compliment**

Letter of a good study “Command and Staff”, and “National Defense”, Six letter of good duty.

**Family**: Mrs. CHHIM SOVANN Spouse (ID Card Number (010425670)

With 2 children, One Son, One Daughter.

**Hobby** : Watch TV, Read Newspaper, History and Play Chess.

**Contact Numbe**:(855) 12 995 201, (855) 97 96 00 135, (855) 12 759 701

Phnom Penh, Thursday 10<sup>th</sup> August, 2017

**Signature**

## **SUMMARY**

**Title:** The Development of Royal Cambodia Air Force After  
1979 to 2016

**Name:** Brig.Gen. YEM BUN RETH **Course:** NDC **Class:** 59

**Position:** Deputy Chief of Commissioner of Operation

**Field Strategy**

### **Background and Important of the Problem**

The Royal Cambodia Air Force was established on 1<sup>st</sup> April 1954, shortly after Cambodia gained independence on 9<sup>th</sup> November 1953 and destroyed during Khmer Rouge Regime.

Cambodia faced the consequences of wars over past three decades. They left Cambodia with sufferings, pain and destruction of nearly all infrastructures across the country. There is no economy for international markets. So, Cambodian people's living and national defense relied on foreign assistances during wars. Civil wars between Lon Non-led government and Khmer Rouge leaders caused fierce fighting between the forces of the Republic and Khmer Rouge leaders regardless of Cambodian fellow troops because of the influence of Communist into Cambodian society installed in this doctrine. In 1975, the Khmer Rouge troops overcame the Republic regime. At that time, Cambodian people across the country were evacuated from their houses to various places in remote provinces. The soldiers of the Republic regime were arrested and slain without being sentenced. During the

regime of Democratic Kampuchea, the Khmer Rouge air forces were trained and funded by China. Experts and aviators studied in China. After the Liberation Day of 7 January 1979, millions of people were killed directly and indirectly by the regime of Democratic Kampuchea including students, scholars, teachers, professors and soldiers of all kinds of the Republic regime. Due to destructive wars left, Cambodia made its effort to build itself from scratch until it was funded by the Soviet Union and Vietnam. Strategic plans were formulated to rebuild the national forces according to international standards including army, navy and air forces. In 1980, the air forces were established every year until the day of creating the regiment of the air forces under the Commissioner of Air Forces and aviation. At that time, the air forces were trained by the Soviet and Vietnam with training base in Vietnam. After peace talks were conducted by four dispute parties, the air forces returned and be stationed in Pochentong.

The Civil War in Cambodia and Under UNTAC in Cambodia almost of the aircraft and helicopters were declining and going to break down all equipment utility including infrastructure in the Air Base.

After the national election of 23<sup>rd</sup> May 1993, aided by international communities, UNTAC (The United Nations Transitional Authority in Cambodia), Cambodia became the state with full sovereignty in national and international political arena and had the rights to decide on everything by itself without being under any state and without internal interference of any countries. Cambodia has a new constitution and political organizations. Cambodia became a state with rule of law and has

the Parliament, Government and Judiciary. Under the national unity politics of Samdech Norodom Sihanouk, the troops of all sides participating in the national election were integrated – the Royal Armed Forces set up again including the army, navy and air forces. In that state, the air forces of the State of Kampuchea as well as the air forces of Funcinpec expanded themselves in many bases in Pochentong, Kompong Chhnang, Battambang, Siem Reap under the order of the High Command Headquarters of Air Forces based along National Road No.3. The resources of the air forces mostly are experts including those who underwent the military training in foreign countries such as Soviet Union, France, US, Vietnam, and Thailand and they are fully capable to defend the territorial integrity of the Kingdom of Cambodia, particularly territorial air. However, the current challenges of the air forces of Cambodia are many deficiencies including:

- The training of new resource that do not meet the requirements by the Air Force standard.
- The training is limited
- Infrastructures for training
- Necessary equipment for training, aircrafts and helicopters.

Recently Royal Cambodian Air Force still lack of all needed for processing to run the Air Force such as human resource; aircraft, helicopter, equipment and infrastructure in the Air Base and Air Force training school.



## **Objectives of Research**

1. To provide the information about the Royal Cambodian Air Force history
2. To evaluate the situation of operating flight without full equipment belong to the Air Force.
3. To rebuild the new generation of Royal Cambodian Air Force for integrating to ASEAN Air Force for HADR (Humanitarian Assistance and Disaster Relief).
4. To Prepare the Cambodian Air Force for cooperation among ASEAN Air Force.

## **Scope of Research**

The scope of this research paper will write the issue step by step around of the Royal Cambodian Air Force only from the period of time depends on the document and interview of the day.

## **Methodology**

Through by my experience and my knowledge that I had work with from the beginning until the present day and most of document note by Air Force website and limited of time of traveling for research and including interview from the personal.

## **Results**

The results that I expect from my research elaborated will use my data to answer my research question, and will get a good result to complete my research paper. It is useful for utilization.

## **Recommendations**

Air war is a very effective war which can destroy the target area in a quick and timely manner and it is a war which costs a lot of money, and does not need to spend forces. Currently, the use of air forces for waging a war is popular amongst the world's big powers full of military weapons because this way can benefit a lot to succeed.

The evolution of modern technology for equipping the military sector for developed nations is diversified. While there is an increase in modern technology, the human resources for using the modern technology also increase, and the government also spends a lot for this sector. Most air forces are the learners of modern technology equipped with the air forces and those people also need to be fully qualified to use and maintain the technology sustainably to implement daily work except the expiration. To ensure the sustainability of safety of territorial air, the use of modern technology of the air forces evolves according to the regional and global situation in order to protect sovereignty and territorial integrity of the country and prevent terrorism.

To obtain the sovereignty and territorial integrity of one nation, it not only has good diplomatic policies and foreign relationship, but also

has strong human resources and modern technology and equipment for preventing the violation of unfriendly forces from “cold” or “hot” politics.

To respond to the regional and global situation, each nation must make its best effort to spend a lot of budget purchasing military weapons as well as modern technology for the national defense sector. Therefore, our national defense is limited and the training of new intellectuals for the national defense does not respond to the current and global situations, particularly in the ASEAN community.

For the national defense sector to catch up with the regional and global situations, Cambodia must try to better develop the national economy in line with the rectangular strategy of the Royal Government of Cambodia. The development of one national economy is better as it depends on the national security and stability. Therefore, the national defense sector is responsible for those issues. To safeguard the national security and stability, the Government must spend money purchasing modern military equipment for the Royal Armed Forces as well as the air forces to ensure sustainability.

The social stability will spur the economic growth to catch up with international markets. Moreover, we can properly use natural resources such as all kinds of mines available in the country according to the situation of global economy. In particular, we must jointly consolidate national politics and build a culture of peace and respect of national constitution.