

By  
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**W**HAT is Air Defense? Most of us believe that air defense includes the offensive action to destroy or neutralize the enemy's air power. The fact is, it is defense against attacking aircraft. US Air Force Field Manual 1-25 defines air defense as, all measures necessary to prevent, to interfere with, or to reduce the effect of hostile air action after the aircraft have left their airdromes or carriers. This definition therefore, limits air defense to operations against the enemy's aircraft on their way to defended targets.

#### Classes of Air Defense

The above definition can be further broken down into the active and passive air defense. Active air defense are the measures necessary to prevent or interfere with hostile air action, while passive air defense are the measures necessary to reduce the effect of hostile air action. Intercepting enemy aircraft, and jamming their electronic equipment are examples of active air defense. This is a responsibility of the Philippine Air Force. Dispersion of industry, camouflage, evacuation, fire-fighting,

blackouts, radio broadcast control and decontamination are examples of passive air defense measures. The organization that is primarily charged with the passive air defense of a country is the Civil Defense Administration. Civil Defense is, in turn, the responsibility of the civil government. Passive defenses of all military installations are the responsibility of the armed forces. The armed forces give advice and assistance to civil defense organizations.

#### Air Defense Mission

The primary mission of air defense is to protect enemy air attack on vital targets or objectives such as storage depots, factories, water and land transportation networks, our own offensive striking force and supporting services. These objectives are given priority whenever an air defense system is set up.

To be effective, an air defense system should be able to: (1) prevent the enemy's first attack from causing a catastrophe, (2) prevent the first attack from paralyzing our capacity to retaliate, and (3) prevent the enemy offensive force from carrying out further successful blows against our productive capacity. To insure this, the Air Force must be able to gain and maintain air superiority within the borders of the country and outlying areas important to her defenses.

Active air defense system is composed of interceptor aircraft, anti-aircraft artillery, and aircraft control and warning units. These three elements function in coordinated harmony as a team.

The interceptor is the aircraft used for intercepting hostile aircraft. However, the ground anti-aircraft guns may be used for this purpose when deemed practical. The present interceptors of most of the countries are composed of fast jet aircraft. This was resorted to, because the long range or strategic bombers have been converted to jet aircraft.

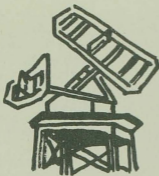
The anti-aircraft artillery consists of heavy and medium guns and automatic weapons. It complements the interceptor aircraft. These anti-aircraft units are assigned to the army. However, during combat, these units are under the operational control of the Air Defense Commander.

The aircraft control and warning units are a part of the Air Defense Command, and are composed of a system of control centers, radar stations, and communications facilities. This system detects and identifies aircraft in flight, controls the action of the interceptor aircraft, and controls the firing of the anti-aircraft artillery.

#### Steps for Air Defense

There are four steps to be carried out in implementing a good air defense mission. These steps are: Detection, Identification, Interception, and Destruction.

For the air defense to function properly, a coordinated effort within the air defense team is essential. The aircraft control and warning units detect the approach of the aircraft, identify them and the interceptor aircraft are sent up to intercept and destroy them, if the approaching aircraft are hostile. The AAA is also



*A plan to modernize and meet all requirements of an adequate Aircraft Control and Warning System Net has been proposed.*

used for the destruction of the approaching hostile aircraft, if they elude the fighter interceptor, and are headed for their objectives. The known targets or objectives are protected with anti-aircraft guns.

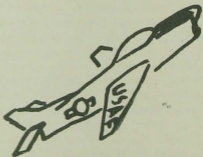
After reading the above discussion on Air Defense, I am sure you will ask yourself these questions: Do we have an Active Air Defense System in the Philippines? Is it adequate to meet an air attack?

Before I answer these questions, I would like to touch on the proposed Air Defense of the Philippines. As mentioned before, the air defense of the country is the responsibility of the Philippine Air Force. To do this, the Air Force proposes to organize the following:

- a. An Aircraft Control and Warning System to control Air Defense Operation.—This system will provide sufficient Early Warning Stations to cover all possible approaches to the Philippines. In our present defense

system, the number of radar stations that we have are so few and are equipped with small radar sets with limited and inadequate coverage. This shortage has allowed gaps in between our radar stations. These gaps provide made-to-order airlands for the enemy if not filled with gap filler radars. Another defect in our system is that due to the limited coverage, the time allowed our interceptors from scramble to interception is too short. With our old out-dated F-51s, the chances are, the hostile aircraft will be able to elude our interceptor defenses and to reach their objectives. The new system has been planned to correct all these defects.

- b. A Wing of Jet F-86s to intercept enemy aircraft before they cross the Philippine borders.—This will be composed of three



*The Philippine Air Force interceptor units should be replaced with F-86 Jet fighters instead of the F-51 fighter aircraft.*



The uses of modern Antiaircraft Artillery are necessary for the destruction of approaching hostile aircraft.

squadrons, and will mean the modernization of our present F-51 propeller-driven fighter wing.

- c. To establish closer coordination with the Defense Administration. — This system will have certain effects on the Philippines. As soon as the Early Warning Stations detect and identify enemy aircraft, the F-86 interceptors are directed to take off and destroy them before they can inflict any damage on vital areas in the Philippines. The network will give sufficient time of warning to the civilian agencies for their protective measures.

The F-86 Jet Fighter Wing will put the Philippine Air Force in a position to counter intentions of enemy aircraft to inflict damage to our will and capability to survive.

#### Need Modern PAF

To underscore the threat to the Philippines and therefore, the impe-

riative need for modernizing our air defense system, we quote here a statement by Marshal Zhukov, USSR Defense Minister, contained in his recent address to the 20th Congress of the Communist Party of the Soviet Union as follow:

"It is no longer possible to fight without being subjected to retaliatory blows, if anyone wants to deliver an atomic attack on the enemy he must be ready to receive similar and perhaps more powerful attacks from him."

As a word of warning to the countries where American bases are located, Marshal Zhukov added:

"They are subjecting their lives to the *THREAT* because, according to the logic of armed battle, *retaliatory blows, must fall on bases, independent of whose territory these are situated on.*"

The answer to the two questions in your mind is a quotation of a statement made by Gen. Laurence S. Kuter, Commander of the US Far East Air Forces, in an exclusive interview at Baguio on 24 February 1956 by a reporter of the Manila Chronicle. He said, "The US 13th Air Force and the Philippine Air Force are inadequate to repel a concentrated air attack on this country." He further said, the 13th Air Force, stationed at Clark Air Force Base, is one of the smallest units under his Command.

#### Detection and Warning

It is an accepted fact, that interceptor planes are the first line of

defense. However, they are of no value without the Aircraft Control and Warning System. The hostile aircraft must first be detected and identified before they are intercepted and destroyed. The teamwork of three elements of air defense is most important. The Aircraft Control and Warning System is indispensable in a successful air defense operations. It is indispensable in the sense that, it gives warning of all impending air attack to both the military and civil air raid warning centers. All of these elements must be planend hand in hand when planning for an adequate Air Defense.

For the Philippines or any country for that matter, an adequate Air Defense set-up will mean whether or

not the country will be able to survive the next war.

To further emphasize its importance, I will quote the man who commanded the largest Air Forces during World War II. General H. H. Arnold said:

"Three types of defense against the atomic bomb can be conceived: first, we should attempt to make sure that nowhere in the world are atomic bombs being made clandestinely; second, *we should devise every possible active defense* against an atomic bomb attack once launched; and third, we might redesign our country for minimum vulnerability to atomic bomb attack. All three could, of course, be combined."



Picture above shows President Magsaysay signing the acceptance papers for the first four jet trainers. Looking on are Major General Smith of JUSMAG, US Ambassador Ferguson, and Brigadier General Pelagio A. Cruz, PAF Chief.



Crews and mechanics of the PAF are shown above giving a thorough "inspection" of one of the four jets recently turned over to the Philippine government.

However, our national economy is such that we can only afford to provide for a small, effective, Active Air Defense Force. While a big and rich country like the US can run the gamut of a complicated air defense set-up, we can only pool our resources with Mutual Defense Assistance Programs which have been consistently supporting the modernization program of the Philippine Air Force. JUSMAG has programmed a total value of \$12,289,979 in aircraft and equipment as aid to the PAF.

By virtue of our sovereignty however, we naturally have to assume the primary responsibility of protecting our national integrity. It is, therefore, imperative that our government should shoulder part of the expenses for national security in addition to whatever aid received from the US Armed Forces. A year to year increase however modest, in the soundest investments our government can ever hope to have to provide for the country's security.