Senator Miller. To what extent do your answers tie in with this [deleted].

Secretary McNamara. With what?

Senator Miller. [Deleted.]

Secretary McNamara. [Deleted.]

Senator Miller. And the restrictions are still removed?

Secretary McNamara. That is correct, on those [deleted].

Mr. Kendall. That was in the Hanoi restricted area.

Secretary McNamara. Hanoi and Haiphong both. The total of [deleted] I believe in the two. I may be in error on this, but I think it was [deleted].

(The information referred to was furnished to the subcommittee but deleted for security reasons.)

Mr. Kendall. Speaking of [deleted] General Wheeler testified [deleted].

DOUGHNUT AREAS NOT PENDING MATTER

Secretary McNamara. Not other than as of July 20. I do believe there has been no subsequent recommendation on it. As Chiefs did present a recommendation about I think 10 days ago, another one about 3 or 4 days ago, and I don't believe either one of those seemed reference to the two doughnut areas, which does mean that they wouldn't at some point in the near future again, that is consider the restrictions that apply to those areas, but it is not a pending matter.

Mr. Kendall. But General Wheeler and General McConnell believe, testified that they would need additional authorization in those areas.

Secretary McNamara. I don't doubt it a bit.

Mr. Kendall. But that hasn't come to you yet.

Secretary McNamara. It hasn't, but it hasn't since July 20 or earlier, that when there was a designation on July 20 on it. They are at liberty to resubmit it when they wish to, and I presume at point in the future they will.

Mr. Kendall. General Wheeler testified:

We do have prepared and there is being considered right now another set of targets which I consider to be important, and therefore I consider the approval of other targets which up until this time—

That was August 16—

have not been authorized for attack.

No. 1, have you acted on those yet, and No. 2, is that justified?

PRESUMES CHANGES IN TARGET LIST WILL CONTINUE

Secretary McNamara. I don't want to predict what will be the future, but certainly the history of the past 30 months, that there have been continued changes in the authorized list and I presume that would apply to the future.

I believe that—let me check this for the record. I won't take time—I believe that there have been additional targets designated since the 16. I recall three. There may be others, and I will get record and correct it if there have been.
APPENDIX A TO McNAMARA TESTIMONY
some historical notes on air interdiction in Korea, september 1956
(by Gregory a. caner, the RAND Corp., Santa Monica, Calif.)

introduction

Air interdiction is defined as the use of air power to "prevent or hinder the enemy from employing his available forces and resources to wage war" (1). This definition, though not intended to be all-inclusive, is broadly accepted by the United States armed forces. It logically extends to include all actions taken by the armed forces to deny the enemy's use of an area or road. In the words of the Joint Chiefs of Staff, "Interdiction is defined as any use of military forces to prevent or hinder the enemy's use of land, sea, or air within a given area or route or area" (2).

To accomplish this task the air force employs two basic types of missions: planned attacks against known fixed targets, and armed reconnaissance. The purpose of the armed-reconnaissance mission is to seek out and destroy "targets of opportunity" along designated routes or within an assigned area. This type of mission, which emphasizes the inherent versatility of manned aircraft, was used effectively in both World War II and the Korean conflict.

interdiction missions are directed against two types of targets: areas of concentration and the supplies they contain. A bridge is an example of the former, a loaded warehouse an example of the latter. Other typical interdiction targets include railroad trains, tracks, rail and highway bridges, trucks, marshaling yards, buses, and storage facilities.

Air force doctrine at the time of the Korean War placed interdiction second on the list of priority missions for aircraft (3). The requirement for air superiority received first priority. Since the United Nations enjoyed essentially complete air superiority throughout the Korean War, the air force was able to devote almost all of its combat sorties to an intensive interdiction campaign. As a consequence of the priority accorded it, the interdiction work resulted in considerable damage being inflicted upon the enemy logistics systems. From 26 June 1950 through 27 July 1953, the USAF flew 23,465 interdiction and armed-reconnaissance sorties and claimed to have destroyed 877 bridges, 116,434 buildings, 999 locomotives, 14,909 railroad cars, and 74,669 "vehicles." The damage to supplies and equipment was extensive—but it was not enough. Published reports on the results of the Korean interdiction campaign range from "failure" to "a major factor in persuading the Communists to sign an armistice." The consensus seems to be that the program was, at best, a limited success.

The purpose of this paper is to examine some significant features of the Korean interdiction campaign, to look at the principal reasons for the limited success of the campaign, and to suggest ways in which future campaigns might be improved in the Korean experience. The several similarities between the interdiction program in Korea and the war effort in Vietnam used in Indochina that at least some of the expend.
AIR WAR AGAINST NORTH VIETNAM

THE AIR SUPPLY SYSTEM

Our principal enemy affected the interdiction of the supply system used by the enemy in Korea (North Korea, People's Army of Korea, and Chinese Communist Armed Forces). The American and North Korean divisions of 10,000 men required only 500 tons of supplies per day, allowing for some stockpiling and losses. But stockpiling became the enemy's goal. The 800-man per day needed to support 10,000 men U.S. forces were

The Communist requirements were kept low by several policies, including the requirement that organizations unable to obtain food via the normal channels obtain it from the local farmers. This led to several cases where "free zones" could be exchanged for food. The local farmers received these "free zones" because they could trade them for as little as the nearest supply section or he could use them as cash credits with the Circle Korean Group.

Another tactic successfully employed by the Communists was to keep their requirements to a bare minimum was their policy of using captured weapons equipment and food to the maximum extent possible. According to one reference, "If the CIA policy of supplying equipment and ammunition which could not be directly supplied to the enemy (because of the technical limitations of operation, or lack of ammunition and personnel) would be equally dependent on a higher level of use for transport to Manchuria or China, were able to use it.

The most notable feature of the supply distribution system was the flexibility of "the most outstanding feature of the enemy logistical achievement, been the ability to shift and use the entire system to meet immediate needs and the dictates of the military situation." The CIA naturally preferred the more efficient trains and trucks, the Communists in every available means of transportation to get supplies to the front lines. The alternative, or supplantable, transportation schemes included as a means of carrying it about 30 to 30 lb. per man carrying a white flag, the same as a 4000 ft. high, horses to horses and trucks to the rear for the enemy.

Due to the effectiveness of UN air interdiction, almost all enemy movements were made at night. The enemy's heavy trucks and supply vehicles were visible to the artillery at night and during the day. Typically, troop movements would consist of a dark column and a stop around 2 or 3 0'clock in the morning in 4-5000 ft. high, horses to horses and trucks to the rear for the enemy.

During the period, road reconnaissance and attack from the air were constantly used repeatedly by various units to minimize vulnerability and conduct frequent "fly by's" as to avoid being seen by the enemy. The United States employed a modern air force consisting mainly of the Far East Air Forces (FEAF) of the U.S. Air Forces in the Far East (FEAF).

U.S. AIRCRAFT AND OPERATIONS

On 31 May 1950, one month before the start of the Korean War, FEAF had four types of aircraft available: the B-26 Invader, B-29 Superfortress, F-80 Shooting Star, and the P-82 Twin Mustang. Soon after the war started, it was necessary to have an adequate number of aircraft. The P-82 Twin Mustang, on the hand, was the first to be used for the job. The F-80 made it unsuitable for use against Korean targets while based in Japan. The F-82 Mustang, on the hand, was used almost exclusively in the Korea role of a day fighter. In July 1950, FEAF converted six squadrons to B-26s.

* Source: Air War Against North Vietnam, p. 154.
Marine bombing was practiced in Korea for B-26s and B-29s, and although the initial results were generally poor due to lack of both equipment and trained personnel, operational bases that had been prepared in the war were rather effective.

 Radar drops using M-602 equipment were somewhat similar to ground-controlled approach (GCA) in the air action. The aircraft's position was placed on a radio map, and the bombs were dropped on it. In 1951, a similar method was employed for an aircraft. However, the situation was different when the aircraft was hit, and the ground control had to use a different technique. This technique was frequently used successfully in ground-control operations.

 The Air Force adopted the GCA radar drop technique in October 1951, and a number of key bridges were repaired overnight, while others required from 24 to 48 hours to carry bomb damage in minimum time. This was done in the effectiveness of Operation Strangle. On 23 November 1951, the Air Force announced that the Chicom's "best known railway yard in Pyongyang and .....

 The radar operation strategy Air Force strategy was introduced following the following: (1) the fact that had been made in the trucks were not accounted for, particularly during darkness, but weather, (2) the trucks were repaired, they resulted in a new attack on the Chicom's ability. The Chicom could repair in a reasonably short time, and (3) the night position that could be taken.

 In dealing with the Chicom's use of key rail yards, the Chicom's units were repaired in a remarkably short time. The Chicom's ability...
The results were kept open by units of the Highways Administration Bureau which was placed under the control of the North Korean Ministry of National Defense. As a result, UN attacks on the roads, bridges, and rail installations of the Communist supply system. The UN attacks were aimed at disrupting the enemy’s supply routes, and, most important, the result of these efforts, was to force the enemy to move supplies by air. The UN Air Force bas been involved in the interdiction effort in Korea since 1950.

The Air Force bas been involved in the interdiction effort in Vietnam since 1965. In Vietnam, the enemy was forced to use air drops to supply his troops. The lack of a night-attack capability was the single most important restriction on the effectiveness of air interdiction in Vietnam. The lack of a night-attack capability is the single most important restriction on the effectiveness of air interdiction in Korea.

In Korea, the enemy was allowed, in most cases, to continue fighting. In Vietnam, the enemy was forced to the front line, and, in some cases, to continue fighting. In Korea, the enemy was allowed to use nuclear weapons. In Vietnam, the enemy was not allowed to use nuclear weapons.

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the most we may ever learn of the results of interdiction, are now known. Detailed accounts are readily available. A review of these accounts with the object of discovering “common denominators” of successful (and unsuccessful) interdiction efforts would certainly be illuminating and might be very rewarding.

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