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THE DEFENSE OF DAK SEANG

SPECIAL REPORT

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REPORT

THE DEFENSE OF DAK SEANG

15 FEB 1971

HQ PACAF

**Directorate of Operations Analysis
CHECO/CORONA HARVEST DIVISON**

Prepared by:

COL J.F. LOYE, Jr. MAJ L.J. JOHNSON

Project CHECO 7th AF, DOAC

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14. ABSTRACT Project CHECO was established in 1962 to document and analyze air operations in Southeast Asia. Over the years the meaning of the acronym changed several times to reflect the escalation of operations: Current Historical Evaluation of Counterinsurgency Operations, Contemporary Historical Evaluation of Combat Operations and Contemporary Historical Examination of Current Operations. Project CHECO and other U. S. Air Force Historical study programs provided the Air Force with timely and lasting corporate insights into operational, conceptual and doctrinal lessons from the war in SEA.					
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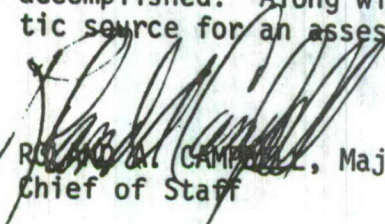
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The counterinsurgency and unconventional warfare environment of Southeast Asia has resulted in the employment of USAF airpower to meet a multitude of requirements. The varied applications of airpower have involved the full spectrum of USAF aerospace vehicles, support equipment, and manpower. As a result, there has been an accumulation of operational data and experiences that, as a priority, must be collected, documented, and analyzed as to current and future impact upon USAF policies, concepts, and doctrine.

Fortunately, the value of collecting and documenting our SEA experiences was recognized at an early date. In 1962, Hq USAF directed CINCPACAF to establish an activity that would be primarily responsive to Air Staff requirements and direction, and would provide timely and analytical studies of USAF combat operations in SEA.

Project CHECO, an acronym for Contemporary Historical Examination of Current Operations, was established to meet this Air Staff requirement. Managed by Hq PACAF, with elements at Hq 7AF and 7AF/13AF, Project CHECO provides a scholarly, "on-going" historical examination, documentation, and reporting on USAF policies, concepts, and doctrine in PACOM. This CHECO report is part of the overall documentation and examination which is being accomplished. Along with the other CHECO publications, this is an authentic source for an assessment of the effectiveness of USAF airpower in PACOM.


RONALD A. CAMPBELL, Major General, USAF
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FOREWORD

This special CHECO report, The Defense of Dak Seang, is one of a series of such reports devoted to operations associated with the defense of isolated Special Forces/Civilian Irregular Defense Group (SF/CIDG) camps in South Vietnam. Previous CHECO reports examined the defense of such camps at Plei Me in 1965, A Shau in 1966, Dak To in 1967, Khe Sanh and Kham Duc in 1968, and Ben Het in 1969. The defense of all these camps emphasized one central theme--the paramount role of airpower. Even when the camps fell, as happened at A Shau and Kham Duc, it was airpower which made successful evacuations possible. The successful defense of Dak Seang, in April and May 1970, also attested to the primacy of air support. In the words of Lieutenant General A. S. Collins, Jr., the Commanding General of the First Field Force Vietnam, "It (air support) has been superb and decisive in the defense of Dak Seang."^{1/}

The body of this report is divided into four chapters. Chapter I is a broad introduction which discusses general information relative to the Dak Seang operation. Chapter II examines the five phases of the defense of Dak Seang from 1 April through 9 May 1970. Chapter III explores the aerial resupply effort at Dak Seang, a significant contribution in itself. Chapter IV serves as a summary to the report. In addition, there is an epilogue which, in effect, notes the passing of the CIDG camps as originally conceived.

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CHAPTER I

INTRODUCTION

Background

In February and March 1970, intelligence sources began to report increased enemy activity in the tri-border base area. There also were indications of an impending country-wide enemy offensive in the Republic of Vietnam (RVN).^{2/} Agent reports and sensor readouts revealed continuous enemy movement into and around Kontum Province in the Second Corps Tactical Zone (CTZ) where Dak Seang was located. Furthermore, prisoner of war (PW) interrogation reports and captured documents frequently mentioned Kontum City, Dak To and Ben Het (see Figure 1) as probable targets for attack, but Dak Seang itself was never mentioned in such reports.

When, on 31 March, the enemy launched a coordinated offensive throughout the RVN, his actions were not, then, a complete surprise. In the II CTZ there were attacks by fire against most major installations, and it was at first feared that another 1968 Tet type offensive was underway. However, it soon became clear that the enemy was not trying to take and hold any positions, but rather he was engaged in typical hit and run guerrilla tactics.^{4/} The one exception seemed to be at Camp Dak Seang which, at 0645 hours on 1 April, received heavy attacks by fire in conjunction with probes by enemy infantry who were close to the camp perimeter.^{5/} Later that same day, intelligence revealed that the 28th North Vietnamese Army (NVA) Regiment was located three kilometers north of the camp. At first

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it was felt that the Dak Seang operation might just be a diversionary attack for some other major objective. But as the days passed with no let up in the intensity of the attacks and when another NVA regiment was discovered south of the camp, it was obvious that Dak Seang was definitely under siege. Then, on 7 April, a PW report revealed that the mission of the 28th NVA Regiment was to overrun and occupy the Dak Seang Camp.^{6/} Apparently the enemy wanted to reduce the image of the RVN government by demonstrating the inability of government forces to protect camps and villages in the Dak To District.

Surprise at Dak Seang

As already noted, the opening of the enemy's "Summer Campaign" on 31 March was not unexpected. However, he certainly gained tactical surprise at Dak Seang when he infiltrated into that area with no initial opposition.^{7/} Evidence of this surprise was shown in the following incident.

On the afternoon of 31 March a C-7 Caribou left Pleiku Air Base with a cargo of food for the camp at Dak Seang. At that time normal airland operations were still in progress, and the C-7 landed and offloaded its cargo without incident. The C-7 was then loaded with about 100 rounds of 105mm shells to be taken to Pleiku for reshipment to another camp with a greater need for the ammunition. Ironically, within less than twenty-four hours Dak Seang found itself in desperate need of all kinds of supplies, including ammunition, as the enemy siege began.^{8/}

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I CORPS

LAOS

CAMBODIA

DAK PEK

QL 14

NUI EK

DAK SEANG

LIMA
TANGO

BEN
HET

FSB 6
DAK TO II

DAK TO I

TAN CANH

QL 14

KONTUM

PLEI MRONG

PLEIKU

COUNTRY BORDER

CTZ BORDER

ROAD

Figure 1

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The Terrain

The Dak Seang Camp is located in northwestern Kontum Province about sixty-five kilometers northwest of Kontum City and sixteen kilometers north-northeast of Ben Het.^{9/} Situated in the Dak Poko River valley, the camp lies about two kilometers west of the river and is surrounded by rolling terrain which rises to about 2200 feet mean sea level (MSL).^{10/} The terrain farther to the east and west of the camp is much more rugged with parallel mountain ridges reaching heights of 5700 feet MSL.^{11/} Most of the terrain throughout this area has heavy forests which have single, double, and triple canopies with moderate underbrush that restricts aerial observation and makes ground maneuvering difficult.

During April and May the enemy made good use of the terrain around Dak Seang. His lines of communication (LOC) were well concealed, and, although ground maneuvering was difficult, he was able to move his troops and supplies into the battle area. Fortifications such as bunkers and foxholes built along these LOCs provided good cover from friendly tactical air and artillery. Within the battle area itself he also made use of well constructed bunkers for protection against friendly firepower. In placing his antiaircraft weapons he took advantage of the terrain and located them so that he could direct maximum fire against air corridors which, because of the topography, were obvious. And as the operation progressed, it was clear that his observation positions were well chosen so as to provide the best possible surveillance of friendly positions.

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The Decision to Hold Dak Seang

One may wonder why the decision was made to hold Dak Seang against the determined enemy attack, and while there was perhaps no simple answer to that question, certain observations could be made. In the first place, the mission of CIDG Camps was to conduct border surveillance operations, collect intelligence, interdict enemy supply routes and LOCs, and expand the Government of South Vietnam (GVN) control in remote areas of the country where such control was limited or nonexistent.^{12/} All aspects of this mission were indispensable in guerrilla war, and, of course, whenever any CIDG camp fell it was a serious blow to the GVN. The fall of such a camp could have serious repercussions by undermining the faith of the people in the central government. Additionally, in the particular case of Dak Seang, it was situated astride a vital infiltration route from Laos. Together with Ben Het (the target of a similar attack about a year before) it was essential in blocking approaches to the whole Dak To, Tanh Canh, Tu Mrong valley area.^{13/} Finally, Dak Seang, like all CIDG camps, also was designed to entice the enemy to mass for an attack.^{14/} When thus "fixed," the enemy was then quite vulnerable to devastating firepower from tac air. Viewed in this perspective, the Dak Seang operation was a very expensive one for the enemy as this report later shows. In any event, the decision to hold was made. In support of this decision, the 7AF position simply stated was, "Dak Seang will not fall." Sufficient tac air was to be used to keep the camp from falling.^{15/}

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CHAPTER II

THE CAMPAIGN

The command headquarters in charge of the operation to relieve the siege of Dak Seang was the 24th Special Tactical Zone (STZ) of the Army of the Republic of Vietnam (ARVN). To provide relief for the camp, elements of the 24 STZ planned to conduct search and clear operations in five phases. Phase I, from 1 April - 7 April, called for the 24 STZ to attack from the south in order to seize the high ground on the east and west of Camp Dak Seang. Phase II, from 8 April - 14 April, required the 24 STZ to conduct search and clear operations in the vicinity of the camp. From 15 April - 28 April, during Phase III, the 24 STZ was to attack in order to seize the high ground north of Dak Seang. In Phase IV, from 29 April - 6 May, the 24 STZ was to conduct additional search and clear operations in the vicinity of the camp. Phase V, from 7 May - 9 May, directed that elements of the 22d ARVN Division provide cover for the retirement of the ARVN forces in the vicinity of Camp Dak Seang.^{16/}

Phase I: 1 April - 7 April

The situation around Dak Seang on 1 April was gloomy. A large enemy force had surrounded the camp and attacks by fire were heavy and continuous. Normal supply channels to the camp by airlanded operations or by truck convoy on Highway 14 were out of the question, and the camp had been cut off from its only source of water, the Dak Poko River.^{17/} Among the approximately 550 defenders, four U.S. advisors and six Vietnamese were wounded,

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a U.S. team house was destroyed, communication facilities were partially destroyed, and the tactical operations center was damaged.^{18/} It was obvious that a successful defense of the camp would depend largely on USAF/VNAF forces meeting a dual mission. First, air resources had to provide the tactical air firepower to keep the enemy from overrunning the camp. Second, aerial resupply (discussed in Chapter III) had to provide the camp defenders with the necessary supplies to continue their defense. During daylight hours on 1 April, twenty USAF tac air sorties struck enemy bunkers around the perimeter of the camp*, and that night the first three AC-119 (Shadow)^{19/} gunships were scheduled to provide security during the hours of darkness.

On 2 April, the 24 STZ began to insert forces at Fire Support Base (FSB) Tango in order to provide support for the camp. Elements from an ARVN infantry battalion and two artillery battalions were inserted at Tango. At the same time another infantry battalion was moved from Kontum to Tan Canh.^{20/} Throughout the day, Dak Seang continued to receive heavy attacks as the enemy attempted to penetrate the wire perimeter. These ground attacks, like many that followed in subsequent days, were repulsed by tac air. The II DASC Senior Fighter Duty Officer arranged for "Daisy Chains" of fighter aircraft, and forty-four sorties were flown in support that day as the fighters strafed with 20mm cannon and dropped napalm on the

* For a recapitulation of the tac air support provided Dak Seang during April and May, see Appendix I.

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attackers.^{21/} On 3 April, the volume of indirect fire lessened somewhat; but the volume of small arms fire, direct fire weapons, and ground to air fire increased sharply. The infantry at FSB Tango closed with an enemy squad with light casualties on both sides. The 24 STZ inserted more troops to continue its plan of relieving pressure on the camp with a Ranger Battalion and elements of the 1st Mobile Strike Force (MSF) being placed in positions south of the camp.^{22/} It was also on this date that it became known definitely that the enemy was composed of the 28th and 40th NVA Regiments. Tac air support missions rose again on the third of April with sixty-seven fighter, four gunship, and six B-52 (Arc Light) sorties* being flown in support.^{23/}

The remainder of the first week of April saw ARVN forces attempting to capture the high ground to the west and east of the camp in accordance with the plans for Phase I. However, the units engaged in these operations, two ranger battalions on the west and an infantry battalion on the east, met extremely heavy resistance and became bogged down. At one point, one of the ranger battalions was completely surrounded by the enemy, and it was only through the timely application of tac air that the unit was saved.^{24/} Indeed, as the ARVN commander continued to insert more and more friendly troops into various positions around Dak Seang, the number of troops-in-contact (TIC) situations increased and so did the amount of air support

* For a summary of Arc Light bombing patterns, see Appendix II.

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that was needed. The amount of such support increased each day from the 1st to the 7th of April, and on the latter date 147 fighter sorties, five gunship, and six Arc Light sorties were flown. These 158 sorties marked the high point for one day's support. Throughout this time the camp was under continuous enemy pressure, and frequently the fighter and gunship sorties hit the enemy when he was in the very wire of the camp. But the enemy was never able to penetrate the inner perimeter of the camp. One of the first indications of the heavy toll that tac air was imposing on the enemy came on the morning of 8 April when 222 NVA dead* were counted in the wire of the camp. ^{25/}

Phase II: 8 April - 14 April

On 8 April, the units which were to have captured the high ground to the east and west were still encountering determined opposition, and additional units had been inserted south of the camp but closer to it. Two of these units, the 4th MSF Battalion and the 1st MSF Battalion, were to push to the northeast and northwest respectively, and they both moved to within 900 meters of the camp. Tac air was employed extensively in the overall operation with 134 fighter sorties on this day, but Camp Dak Seang itself was fairly quiet. ^{26/}

The days 9, 10, and 11 April were marked by standoff attacks at various locations, TICs at others, and continued clearing operations by the

* For a summary of bomb damage assessment, see Appendix III.

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1st and 4th MSFs. Pressure to the east and west of the camp had now been greatly reduced, and a unit was inserted north of the camp to ease pressure from that quarter.^{27/}

The 12th of April saw the opening of an action which was almost an operation itself within the Dak Seang operation. On the 12th, the Dak Pek CIDG camp reported that they were taking mortar rounds, gas, and a sapper attack. The camp, built on a series of small hills, was partially overrun and forces were inserted to assist the defenders. This action at Dak Pek, of course, represented another consumer of tac air resources. A total of fifty-four air strikes were flown in support of Dak Pek on 12 April while Dak Seang received sixty-four sorties.* Unfortunately, the enemy had seized the highest ground in the vicinity of Dak Pek, and action for the next few days there concerned attempts by the ARVN to recapture the high ground. Once this hill was retaken on 14 April, the friendly position was much improved, and the need for tac air at Dak Pek decreased.^{28/}

The most significant action at Dak Seang on the 13th and 14th of April consisted of two ground attacks. One attack against the camp itself started at 1230 on the 13th. The other engagement took place between ARVN troops to the northeast of the camp and enemy forces which were located between the camp and the friendlies.^{29/} With the help of tac air these

* From 12 April to 8 May 379 tac air sorties were flown in support of Dak Pek, with most of these sorties being flown during the first week of action at that camp. For a recapitulation of the tac air support provided Dak Pek, see Appendix IV.

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attacks were repulsed, and the 14th saw a considerable decrease in enemy pressure, enabling allied forces to move much more freely.

Phase III: 15 April - 28 April

The objective of this phase was to gain control of the high ground north of Dak Seang, in particular FSB 31, a dominant piece of terrain on Nui Ek Mountain three kilometers due north of Dak Seang. Most of the heaviest fighting throughout this phase involved friendly units engaged in operations around Nui Ek. It was not until 25 April that a successful combat assault finally captured the FSB on the mountain. Once Nui Ek and the high ground to the north of Dak Seang were taken, however, activity in the Dak Seang campaign decreased notably until the campaign was closed.^{30/} Some of the more significant engagement of this phase are described below.

On 15 April a combat assault of ARVN forces was attempted on Nui Ek Mountain. The first four helicopters in the assault received extremely heavy fire, which downed one chopper and forced the other three to abort. The Army was unable to extract the survivors of the crash, but an Air Force task force finally did make a successful rescue but only after losing another helicopter in the attempt.^{31/}

On 16 April, it was decided to insert the 3rd ARVN Battalion of the 42nd Infantry Regiment into a secure area one kilometer east of Dak Seang. This unit was then to attack to the north towards the FSB on the mountain. On the 17th the battalion made contact with enemy forces two kilometers

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northeast of the camp and sustained light casualties, and on the 18th as they attempted to continue to the north they met increased enemy resistance. ^{32/}

The 20th of April was characterized by standoff attacks directed against the various elements of the 42nd Regiment and the fire support bases. During the night, the 1st Battalion of this regiment received heavy attacks on its position just to the northeast of Dak Seang -- attacks which used flares, mortars, and B-40* fire as well as ground probes. Shadow (AC-119G) and Stinger (AC-119K) gunships were used for support throughout the night, and at dawn tac air was called in and the enemy's attacks were repulsed. April 21 and 22 followed a similar pattern with frequent attacks by fire, sporadic shellings and ground probes against positions throughout the area and continued heavy pressure on the 1st and 3rd Battalions in their attempts to move to the north. In fact, the 1st Battalion had suffered so many casualties by the 23rd of April, it was ordered to withdraw to Camp Dak Seang. Its withdrawal resulted in the enemy increasing his pressure on the 3rd Battalion, and on 24 April it was therefore decided to insert the 2nd Battalion on a combat assault on the fire support base atop Nui Ek. Throughout all these enemy attacks and friendly assaults; gunships, tac air and Arc Light sorties provided invaluable support to the ARVN. ^{33/}

* RPG-2 Recoilless antitank launcher type weapon.

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On the 25th the insertion at Nui Ek was completed, and, with the help of tac air, the friendlies were able to stay in the area. The 3rd Battalion then began to move back to the south towards Dak Seang, and on April 26 they set up just outside the CIDG camp while awaiting extraction on the 27th. Contacts throughout the day of the 27th were very light, and by 1345 hours the extraction of the 3rd Battalion was completed. At the same time, two ARVN battalions of the 45th Regiment started moving north toward Dak Seang. The 28th saw relatively light action with standoff attacks for the most part against friendly positions around the camp. Additional troops were inserted at Nui Ek to increase the security of this high ground to the north, thus completing Phase III.^{34/}

Phase IV: 29 April - 6 May

April 29 was a continuation of the lull of the previous two days. Ground action for the day was limited to the two battalions (the 2nd and the 4th) of the 45th Regiment. The 2nd Battalion had a TIC one kilometer northeast of Dak Seang in which they employed artillery, mortars, and tactical air. The 4th Battalion, less than one kilometer away, encountered heavy resistance; and, following an unsuccessful assault on the enemy, they were forced to withdraw and call in more artillery and air strikes. These contacts of the 29th continued on the 30th which also saw artillery and tactical air in supporting roles. The plan of operation for 1 May was to employ tac air on the area where the 4/45 Battalion had had the contact the day before, followed by a sweep of the area. The only other ground action that took place was far to the south in an area southeast of Ben Het.^{35/}

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The 2nd of May found the 45th Regiment engaged with the enemy in what was believed to be a delaying action. The 2/45 Battalion was in contact with an estimated company size unit two kilometers north of Dak Seang on the lower slopes of Nui Ek Mountain. After about two hours of heavy fighting, the 2/45 Battalion withdrew 100 meters to allow gunships, tactical air, artillery, and mortars to pound the fleeing enemy. Little further activity took place on 2 May and 3 May. The 2/45 Battalion made a sweep of their area on the 3rd but found no enemy. On the same day the enemy did, however, initiate contacts in the Dak Pek area as a diversionary tactic to cover his withdrawal. Activity continued to decrease on 4 and 5 May, and on 6 May there was only one standoff attack reported. ARVN activity on the 6th was, for the most part, devoted to searching the area for friendly bodies that had been left on the battlefields in previous engagements. ^{36/}

Phase V: 7 May - 9 May

Like the previous few days, there was little activity on 7 May and the enemy continued to withdraw from the Dak Seang area. Sweep operations were continued in the vicinity of FSB31 on Nui Ek, and there was some contact with small enemy units. On 8 May friendly forces devoted most of their time to troop movements and exchanges whereby units which had seen the heaviest fighting were relieved by fresh troops. Then, too, there were extractions of units back to their base camps as they were no longer needed in the campaign which was drawing to a close. ^{37/}

The end of the campaign on 9 May, like so many in Vietnam, was not marked by the dramatic surrender of any enemy force. Instead, activity

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at Dak Seang had simply decreased in intensity after sufficient friendly troops had been committed and were able to drive the enemy from his bunkers. The primary objective of the campaign had been to hold the camp, and that objective was accomplished. In addition, the enemy had been hurt as the 28th and 40th NVA Regiments had suffered heavy casualties. Thus, the enemy's offensive capability in northern II Corps had been diminished. U.S. Army officials believed that the Dak Seang Camp most certainly would have been overrun within the first seventy-two hours had it not been for the effectiveness of tac air. The majority of the enemy who were killed in action were killed by U.S. tactical airpower, and it was apparent once again that the key to successful defenses of positions like Dak Seang lay in such airpower.^{38/}

Lessons Learned

Command and Control Aircraft: The use of Command and Control (CC) aircraft to coordinate many fighter aircraft and insure a safe airspace was not a new idea, but at Dak Seang there were further refinements in the technique. Large numbers of sorties (up to 100 and above) were striking each day in a very small, congested area. As noted earlier, Dak Seang was located in a valley, and most of the fighting took place in this valley less than 5000 meters in diameter as attempts were made to relieve the besieged camp. A CC aircraft was absolutely essential. As employed, each CC aircraft carried two pilots, one to fly the aircraft and the other to transmit instructions to the fighters as they arrived on the scene. When the fighters came into the area, the CC aircraft assigned them to a specific

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forward air controller (FAC) and radio frequency. On occasion there were as many as five FACs directing tac air strikes at the same time. If any delays were necessary, the CC aircraft assigned holding altitudes. The CC pilots were also the on-the-scene evaluators of a constantly changing tactical situation, and they requested increases or decreases in the amount of tac air depending on that situation. Then, too, the Command and Control FACs also had lists of cleared preplanned targets to which they could assign fighters if the tactical situation prevented strikes against primary targets. In short, effective control of tac air in the Dak Seang Campaign would have been impossible without CC aircraft.^{39/}

Surprise Package: An AC-130 gunship equipped with 40mm cannon and sophisticated electronic equipment (the Surprise Package) was used on several occasions during the campaign. Designed primarily for an interdiction role of truck killing, this type of gunship also proved effective against enemy positions around Dak Seang. Indeed, the FACs and the people on the ground who saw the aircraft in action could not say enough in praise of its accurate firepower. As one FAC put it, the AC-130's accuracy was "amazing."^{40/}

X-Band Beacon and Infrared Fabric: When the Dak Seang Campaign opened, the AC-119K Stinger offset firing system was awaiting operational approval. It was the feeling within 7AF that if Dak Seang were to receive a night attack in bad weather, it would probably fall without tac air and gunships for support. Consequently, 7AF approved the use of the offset firing system for emergency use at Dak Seang. Using this system, the Stinger

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would lock on a source of radiation, either from an X-Band beacon or a strip of infrared (IR) material. A computer on board the aircraft would then direct the Stinger's guns against a target at a position offset from the known position of the emitted signal. Both the IR material and the X-Band beacon worked well in supporting a strike on 17 April eight kilometers south of Ben Het, and shortly thereafter the required equipment and instructions for the system were airdropped to Dak Seang. However, the camp was never actually defended by the use of this technique--the offset firing system was not sufficiently understood by the CIDG personnel.^{41/}

VNAF/USAF Coordination: Lack of coordination between the VNAF and the USAF was a constant problem throughout the Dak Seang Campaign. Frequently the VNAF FACs would arrive in the congested battle area and proceed to direct their fighters against the enemy with insufficient coordination with the USAF FACs. To make matters worse, it was sometimes impossible to talk to the VNAF FACs in the air either because of unreliable communications equipment in their aircraft or incompatible frequencies.* Whenever possible, however, the VNAF FACs were supposed to check in with the USAF CC aircraft in the area. Some of them did work this way, and coordination with them was no problem, but unfortunately there were some VNAF FACs in the 62nd Wing who simply would not fully cooperate with the CC aircraft.^{42/}

* Prior to Dak Seang, requests had been made for new communications equipment for VNAF aircraft, but as of the writing of this report the problem had not been solved.

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Coordination with VNAF personnel on the ground was also lacking at times. During the Dak Seang Campaign, the VNAF duty officers at the II CTZ Direct Air Support Center (DASC) were not fully trained. Their inexperience sometimes resulted in their launching strikes against targets without first checking with their USAF colleagues. Thus, occasions arose when there were two FACs and two sets of fighters attempting to hit the same target at the same time.^{43/}

Communications: Lack of sufficient secure communications equipment at II DASC also presented problems. The only secure equipment consisted of an unreliable teletype, a secure phone, and an FM radio. It sometimes took hours to transmit an important message on the teletype, and the secure phone was frequently unreadable or unavailable. Personnel at II DASC felt that what was needed was secure voice for their HF radios. Seventh Air Force has made such a recommendation to PACAF. As of the date of this report, the HF did not have secure voice.^{44/}

Ordnance: Both the method of delivery and the type of ordnance were problem areas during the campaign. The small size of the camp and the surrounding area where most of the action took place meant that only two sets of fighters could be worked at the same time. These fighters could not suppress all enemy fire. Indeed, with a minimum of resources the enemy was able to sustain extremely heavy ground to air fire in the restricted air space. Complicating the picture were the well dug-in enemy bunkers and the heavy foliage. Well prepared bunkers required direct hits by

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heavy, delay-fuzed ordnance before they could be penetrated. Early in the campaign the normal ordnance loads on the fighters consisted of 500 lb and 750 lb bombs and napalm, but these loads were ineffective against certain enemy positions. Once ordnance loads were changed to 1000 lb and 2000 lb delayed fuze bombs, however, this shortcoming was eliminated. As to the heavy foliage which offered the enemy excellent concealment, it was sometimes necessary to probe with individual bombs in order to pinpoint the hard-to-detect targets. ^{45/}

Artillery/Close Air Support Coordination: Throughout the Dak Seang Campaign there was difficulty in the planning, controlling, and timing of both artillery and close air fire support. A Combined Fire Support Coordination Center (CFSCC) was established to coordinate such support, but, because of the inexperience of the ARVN personnel who manned the center, it did not operate very effectively. Another aspect of the problem lay in the characteristic lack of confidence which ARVN infantry leaders had for close artillery support. They much preferred to rely on gunships and tac air whenever they were available. Some of the lack of confidence in the artillery was, perhaps, due to a lack of enough artillery to provide effective support, but more important in this problem were the undue delays and refused clearances that often arose for no apparent reason. The system used to establish night defensive artillery fires also undermined confidence. The Commander of the 24th STZ held nightly planning sessions at 2000 hours, and he required that his personal approval be obtained for all defensive fires. This method of operation meant that no effective fire support was

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started before 2200 or later.

With regard to close air support and artillery conflicts, an air liaison officer was stationed in the CFSCC, supposedly to resolve such conflicts. However, ARVN ground commanders were frequently in communication with the airborne FACs who were directing strikes, and the commanders often called for a check of all artillery fire in the area of operation while a strike was put in against only a small segment of the area. Deficiencies like these were never fully resolved during the campaign, but improvement was noted in the latter stages when there seemed to be more confidence placed in artillery. ^{47/}

Another problem in this general area concerned preplanned missions. According to 7AF procedures, requests for preplanned missions were supposed to be submitted by 1100 hours of the day prior to the day of the strikes. To satisfy this requirement, the 24 STZ requested arbitrary numbers of sorties with arbitrary ordnance for no specific targets. Then, at his 2000 meeting, the 24th STZ Commander would decide what targets were to be struck and with what ordnance. This system resulted in frequent changes in ordnance loads for the fighters. Seventh Air Force tried to remedy this situation by forcing the STZ to accept a fixed number of sorties with mixed ordnance loads. This approach was an improvement, but the situation still was far from ideal. ^{48/}

ARVN Command and Control: The Dak Seang Campaign revealed one glaring weakness in the ARVN command and control structure -- the almost total lack of confidence in subordinate leaders. It seemed that only two people

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could make decisions, either the Commander or the Chief of Staff, no matter how minute the issue might be. As a result the 24 STZ staff showed little initiative in developing long-range plans. Such plans as were made were in most cases developed exclusively by the Commander, and they seemed to be based more on his intuition and personal knowledge of the enemy rather than on intelligence. 49/

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CHAPTER III

AERIAL RESUPPLY

General

When the normal lines of communication to Dak Seang were cut on 1 April, other means of resupply had to be established if the camp were not to be overrun. Resupply by the overland route on Highway 14 and the usual airlanded operations were no longer possible because of the siege, and so, as had been true with so many other CIDG camps, airdrop was the only answer. This chapter examines in detail the resupply effort during the first twelve days of the campaign when approximately 80 per cent of all the airdrop sorties in support of Dak Seang were flown. However, overall figures for the total airdrop resupply effort are included in cited appendices for both Dak Seang itself as well as for the camp at Dak Pek where the action was considered part of the Dak Seang Campaign.

Airdrop Operations

Early on the morning of 1 April, Colonel Donald M. Wood, the Commander of Company B of the 5th Special Forces (which supplied advisors to the CIDG camp), flew over Dak Seang in his helicopter in order to evaluate conditions at the camp after the initial enemy attack. Later that day his headquarters requested aerial resupply for Dak Seang. The most urgently needed items at that time were flak vests, helmets, and gasoline. At first it was felt that these requirements could be met by routine operations, but by mid-afternoon continued enemy pressure on the camp resulted in the

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airlift request being upgraded to emergency level.* It was then that airlift assistance from the 834th Air Division was requested. The 834th diverted two C-7 Caribou to Pleiku where they picked up supplies and headed for Dak Seang. In the meantime the Tactical Unit Operations Center (TUOC) at II DASC, aware of the heavy enemy ground to air fire at the camp, directed FAC coverage for the two missions. One mission flew two sorties and dropped flak vests, water and medical supplies. The second aircraft flew one sortie, dropping helmets to the besieged defenders. The drop zone (DZ) available for these sorties was a small open area, 200X80 feet, on the south side of the camp. This DZ was considerably below desired minimum size, but the first drop was right on target, and the second and third, though outside the DZ, were 100 per cent recoverable by the friendlies. One of the aircraft took two hits from ground fire during its pass over the DZ.^{50/}

On 2 April increased enemy activity at the camp caused the 5th Special Forces to request that MACV upgrade the aerial resupply effort to one of tactical emergency, the highest priority. Actually MACV had not yet even declared the operation an emergency resupply effort, but airlift personnel in the Airlift Control Element at Pleiku, as well as the C-7 crews, were under the impression that a tactical emergency had been declared. With

* The priorities for airlift missions in descending order are: Tactical Emergency, Emergency Resupply, Combat Essential, Priority 1, and Priority 2.

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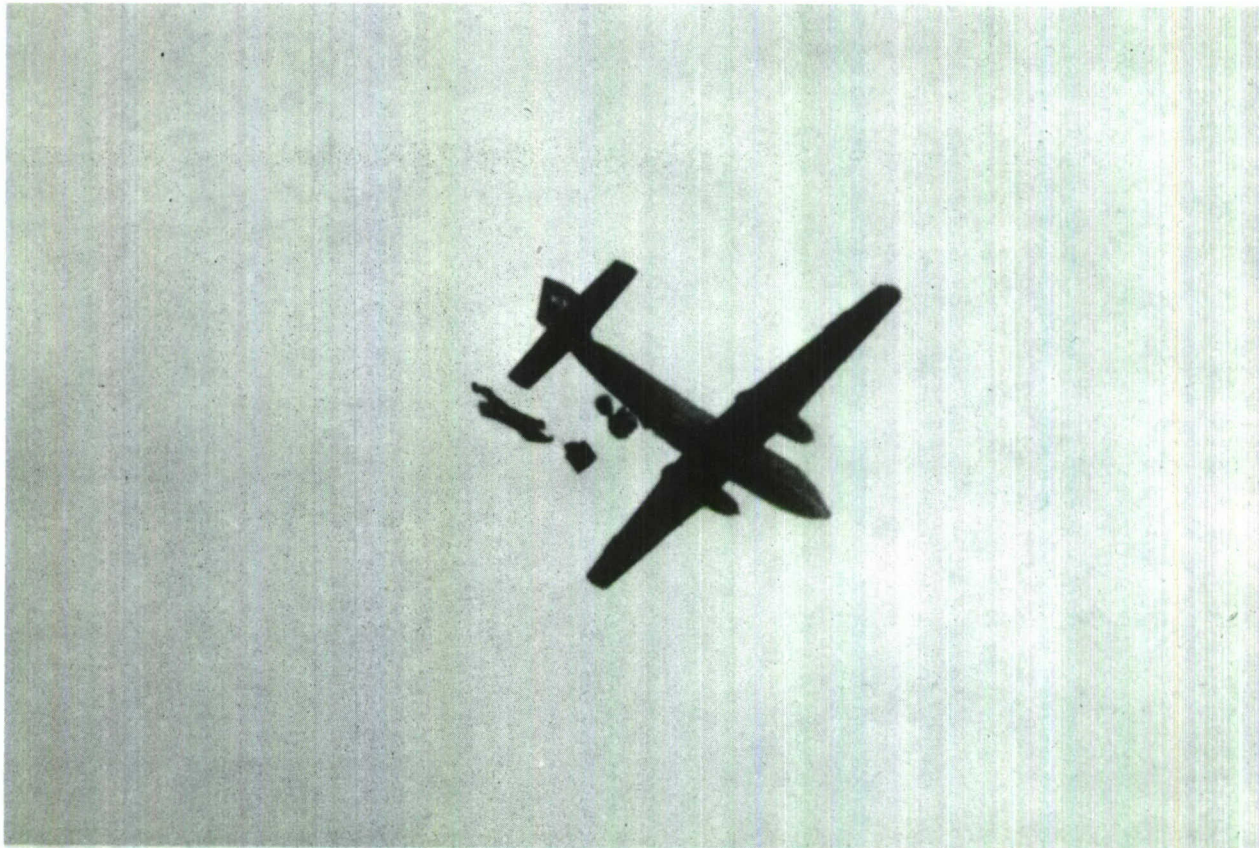


This photograph is the first in a series of three showing supplies being dropped from a C-7 Caribou. The picture shows the last of four pallets to be dropped from the aircraft.

Figure 2

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Pallets leaving the aircraft

Figure 3

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Four pallets descending to the drop zone

Figure 4

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this in mind, two crews departed Pleiku on the morning of 2 April to make their drops at the camp. Fighter suppression tactics were used, and the C-7s were also escorted by A-1E Spads as they approached the DZ. Despite these protective measures, however, the second C-7 was hit and crashed after his drop.^{51/}

With the loss of the C-7, the Airlift Control Center (ALCC) suspended operations into the Dak Seang area pending a higher priority. The ALCC was told that the situation was one for emergency resupply (though later it was discovered that MACV still considered the operation only combat essential), and, at 1400 hours on 2 April, the ALCC directed the 483rd Tactical Airlift Wing (TAW) at Cam Ranh Bay to divert all available C-7 aircraft to Pleiku in support of the Dak Seang Campaign. Later in the day eleven more sorties made drops at the camp, and all aircraft drew enemy fire, with three being hit. Throughout the day, action on the ground was intense and practically all above-ground structures at Dak Seang had been leveled. This destruction, however, had one beneficial side effect in that the entire area of the camp within its wire (200 X 220 feet) could now be used as the DZ.^{52/}

The sixteen sorties which were flown on 3 April flew in trail formations of five or six aircraft spaced at twenty second intervals. Numerous suppression tac fighter sorties were flown to prepare the DZ for the C-7s; smoke was laid to conceal their approach; and Spads escorted the C-7s across the DZ. Despite all these protective measures, nine aircraft were

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hit in the immediate vicinity of the DZ. On 4 April, fifteen sorties were flown in five or six ship cells, again with elaborate protective measures, but still one aircraft was lost with no survivors and six others took hits. The recovery rate of the supplies also dropped noticeably on this day primarily because of loads which hung momentarily before exiting the aircraft and thus fell long.^{53/}

On 5 April the number of required sorties was only six, and, after an analysis of the entire operation to date, tactics for dropping were changed again. It was decided that the six sorties would be split into two ship elements with each element dropping at different times and on different headings. The same protective measures were employed once more, but again three aircraft were hit. The supplies were all recoverable with the exception of one hung load. It was also on 5 April that Captain Ralph R. Black, a member of the 457th Tactical Airlift Squadron, suggested a tactic which would make night drops feasible. The tactic called for a coordinated preplanned time over target so that friendly forces would light flares at each corner of the DZ at the right moment. In this way the C-7 crew would be able to see the zone just prior to dropping. The tactic also called for the aircraft to depart from the Dak To TACAN on the 270° radial at 10,000 feet. On reaching the seven mile fix on the 270° radial, the aircraft would turn to 360° and begin a descent. Exactly five minutes later the aircraft was to be at the DZ. The technique was tried on the night of the fifth, but because the camp was late lighting the flares,

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the drop fell long. However, the technique was clearly demonstrated to be feasible.^{54/}

Tactics for the day of 6 April changed again. Spad escorts were placed under the control of each C-7 aircraft commander who could use them to escort or suppress as necessary during the run. FACs were still used to prepare the corridor. The drop times were spaced at twenty minute intervals, and each C-7 was supposed to drop from a different heading. When the first three C-7s neared the target, however, the FAC on the scene directed (in the clear on FM radio) that all three approach from the same heading. The last aircraft in this element was hit and crashed after a short drop. Later that afternoon three other aircraft attempted drops at the camp using the new tactics as briefed. The first aircraft was hit just prior to his drop, and his load fell long; the second had a hung load and also dropped long; the third was aborted by the FAC because the fighters were running low on fuel. In the words of Colonel Roger Larivee, the Mission Commander at Pleiku, "April 6th was the most discouraging day of the operation."^{55/}

Because of the many hung loads, it was decided on 7 April to place pallets in the C-7s on plywood. Another change made to increase drop accuracy was to reduce the number of pallets on a C-7 from four to three but to increase the load on an individual pallet. Night drops also were initiated on a regular basis on 7 April so as to reduce Caribou losses. To further increase the accuracy of the night drops, AC-119 gunships were

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now used to illuminate the drop zone two minutes prior to the arrival of the C-7s. In this way the Caribou pilots had a perfect target to aim at, and the flares lit by camp personnel would only have to be used in a back-up role. Three sorties flew before dawn on the seventh; all supplies hit the drop zone; no aircraft took hits; and no automatic weapons fire was observed. The night tactics had proven to be a great success. However, the checking of artillery fires which was required by each C-7 caused some concern for the 24 STZ. In fact, they requested that only two of the nine sorties scheduled for the next night be flown so that there would not be so many time periods without friendly artillery fire. Nevertheless, the nine sorties were launched, and each was granted a check fire when requested. All nine sorties dropped supplies which were 100 per cent recoverable. Subsequent night sorties adjusted their tactics so that the total time required for checking the artillery was almost cut in half. Seven sorties dropped on each of the next two nights and were approximately 96 per cent recoverable. On each of the nights of 10-11 April, and 11-12 April six sorties flew and had perfect accuracy. The tactical situation on the ground had now improved considerably, and pallets which had previously landed in the wire were recovered. Patrols were able to venture forth, and the camp now had access to its normal water supply. The Army planned to resume helicopter resupply activity and the need for the C-7s was greatly reduced. Only three sorties flew on the night of 12-13 April. It was also on 13 April that most of the C-7 assets, which had been part of the airlift mission at Pleiku, returned to Cam Ranh Bay.^{56/} Throughout the remainder

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of the Dak Seang campaign, C-7 aircraft did continue to fly resupply missions to the camp, but the big push was off.*

Lessons Learned

Forward Air Controllers: Once again the soundness of the FAC system was proven. The need for an on-the-scene commander of air assets in a particular geographical area could not be denied, especially in view of the congested conditions over Dak Seang. The FAC knew the area better than anyone else, and he was in the best position to evaluate the situation at any given moment. Nevertheless, the FACs who flew in the campaign were criticized on several counts. Some critics said that the FACs always required the C-7s to orbit before approaching the DZ even though coordinated times for hitting the target had supposedly been agreed upon. The FACs' answer to such charges was that preparatory ordnance had to be employed just prior to the drop if it were to be most effective. The fighters could not loiter for long periods so the C-7s were asked to delay. There were also reports that the FACs had occasionally directed a C-7 to make a 360° turn after it had started its descent to the drop zone. The FACs' position in such cases was that they had discovered a dangerous situation necessitating the turn. In a similar vein, some airlift pilots claimed that the FACs had no confidence in their ability to make a given point at a given time. Thus, so the charge went, the FACs would do little until

* For a recapitulation of the total aerial resupply effort at Dak Seang and Dak Pek, see Appendices V and VI, respectively.

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they had the C-7s in orbit and in sight. Once again the FACs explained their position in terms of loiter time. But to reiterate, while there might have been shortcomings on a particular mission, overall the FAC system had demonstrated its efficiency in a job well done. ^{57/}

Planning and Coordination: The planning and coordination necessary for the FAC and fighter escort of the transport aircraft in the Dak Seang campaign were exacting and time consuming. In the hostile environment over the camp nothing could be left to chance, and it was found that a minimum time of four hours was necessary for the planning and coordination. This amount of time might at first seem excessive, but it must be remembered that the air assets involved were located at widely separated locations. If all participating units had been operating from the same base, the necessary time for this phase of the operation could have been drastically reduced. But the important lesson to be remembered was that planning was of paramount import. As one transport crewmember put it, "if you want to find and hit the DZ, talk to the FAC. If you don't want to get shot up, have a suppression package.....plan the mission carefully and thoroughly, and it makes a much better run of it." ^{58/}

Smoke Screens: Smoke, when properly applied, was a good tactic to offer the additional protection of concealment to the slow moving transports on their drop runs. However, care had to be exercised in the use of smoke. If there were too much wind, the smoke would dissipate rapidly and offer no protection to the airlift aircraft. If the wind were prone to shift,

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it might obliterate the DZ before a drop could be made. If there were little or no wind, one smoke screen might be used for several aircraft, depending on their times over target. In short, while smoke was valuable at Dak Seang, it could not be used indiscriminately.^{59/}

Escort Aircraft: The slow C-7 aircraft could not be efficiently escorted across a drop zone by high speed jet aircraft. The Spads, on the other hand, could do the job nicely, staying with a C-7 during its descent, drop, and climb out. If there were sufficient time between target times, the same Spads could then escort the next C-7. Of course, gunships could also provide excellent escort in that they could supply 360° protection throughout a C-7's entire run. But regardless of what kind of escort aircraft were used, it was necessary that the escort pilots know exactly what was required of them. Most escort pilots did a fine job, but there were some who stayed too high to offer any real protection for the transports.^{60/}

Gunships: The night tactics used during the aerial resupply of Dak Seang probably could not have been used without the support provided by the Shadows and the Stingers. There were four missions when ground personnel at the camp were supposed to light flares to mark the DZ for the approaching aircraft, but the flares were lit at the proper time only once. In contrast, on 38 of 42 missions the gunships' lights came on at precisely the correct time. Of the four failures on the part of the gunships, only one was attributable to a crew error. Of even more importance, perhaps,

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was the fact that the gunships' lights provided excellent illumination when compared to the relatively low light level from ground flares.^{61/}

Spatial Disorientation: Closely allied with the use of the bright lights on the gunships was a problem reported by some of the C-7 pilots. As a transport approached the DZ and the gunship illuminator was turned on, the pilot transitioned in an instant from "night to day." Then, immediately after the drop, he went from "day to night" as the illuminator was turned off, and at that very moment he had to begin a steep climbing turn. As a result of these rapid, quantum changes in light intensity, combined with the maneuvers required, some pilots reported momentary spatial disorientation -- a very dangerous situation indeed. Briefing the pilots as to what to expect seemed to help. In similar future situations, it might be helpful to provide the copilot with goggles so that he could retain his night vision.^{62/}

Skid Boards: As noted earlier in this chapter, hung loads were a problem in the early stages of the resupply effort at Dak Seang. With a very small drop zone, a load which was hung for only a moment or two could easily miss the target. However, once plywood skid boards were placed under the pallets so as to provide a smooth surface for the rollers, this problem was eliminated and drop accuracy increased.^{63/}

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CHAPTER IV

SUMMARY

A previous CHECO report pointed out that CIDG camps, when hit by the enemy, were largely dependent upon fast reacting air support for survival.^{64/} The Dak Seang Campaign proved once again the truth of that statement. Although there was fierce ground fighting, and the insertion of supporting ground forces was indispensable, there was no doubt that the enemy could have overrun the camp had it not been for the air support provided for the defenders. Various fighter aircraft, B-52s, gunships, and transport aircraft were all blended together in support of the campaign. For such a small geographical area, the amount of air support provided within the short time span of 38 days was very impressive -- 2829 fighter sorties, 154 gunship sorties, 114 Arc Light sorties, and 164 aerial resupply sorties!

But was it worth the investment? The answer to that question depends upon the criteria used in evaluating the campaign. There can be no doubt that the enemy was hurt. He suffered 2922 killed in action as opposed to 338 friendlies.^{65/} All of the enemy dead, of course, were not killed by air, but one estimate indicated that approximately 50 per cent were.^{66/} The enemy also lost over 100 crew-served weapons such as mortars, recoilless rifles, and antiaircraft guns known to be destroyed or captured, plus countless other weapons and sorely needed supplies in the more than 800 bunkers, storage areas, caves and caches which were destroyed or damaged.^{67/}

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More important than these impressive statistics, however, was an intangible outcome that has already been alluded to. The enemy's objective had been to overrun the camp, embarrass the RVN Government, and weaken the hold of Saigon over the people. The Dak Seang Campaign, largely because of the air support provided the ground defenders, denied the enemy his objective and strengthened the position of the central government.

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As of the end of 1970, Dak Seang was the last major communist offensive in South Vietnam. In addition, the Dak Seang Campaign, in a sense, marked the end of a significant chapter in the Vietnam war because it was the last camp to be attacked where the CIDG defenders were under the control of the U.S. Special Forces (Green Berets). The border camp role for the Green Berets ended in January 1971 when, after almost ten years of operations in such camps, the last two Green Beret outposts were turned over to RVN forces. Dak Seang itself was turned over in November 1970. From 1967 through 1969 only five CIDG camps were turned over to South Vietnamese Special Forces who had been trained by the Green Berets. But beginning in January 1970, the turnover was accelerated, and, less than a year later, it was completed.

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APPENDIX I

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AIR SUPPORT SORTIES - CAMP DAK SEANG

<u>DATE</u>	<u>FIGHTERS</u>	<u>GUNSHIPS</u>	<u>ARC LIGHT</u>
1 April	20	3	-
2	44	4	-
3	67	4	6
4	72	7	-
5	105	6	6
6	122	6	-
7	147	5	6
8	134	5	6
9	108	5	12
10	102	5	6
11	86	5	23
12	64	2	-
13	87	4	-
14	48	1	6
15	74	3	-
16	68	2	-
17	47	4	6
18	67	5	-
19	61	4	-
20	58	3	-
21	78	3	-
22	81	4	-
23	97	3	6
24	93	4	-
25	98	3	-
26	91	3	12
27	80	3	6
28	71	3	-
29	43	2	6
30	8	2	-
1 May	36	3	-
2	37	-	3
3	21	1	4
4	6	-	-
5	8	1	-
6	5	-	-
7	6	5	-
8	10	4	-
TOTALS	2450	127	114

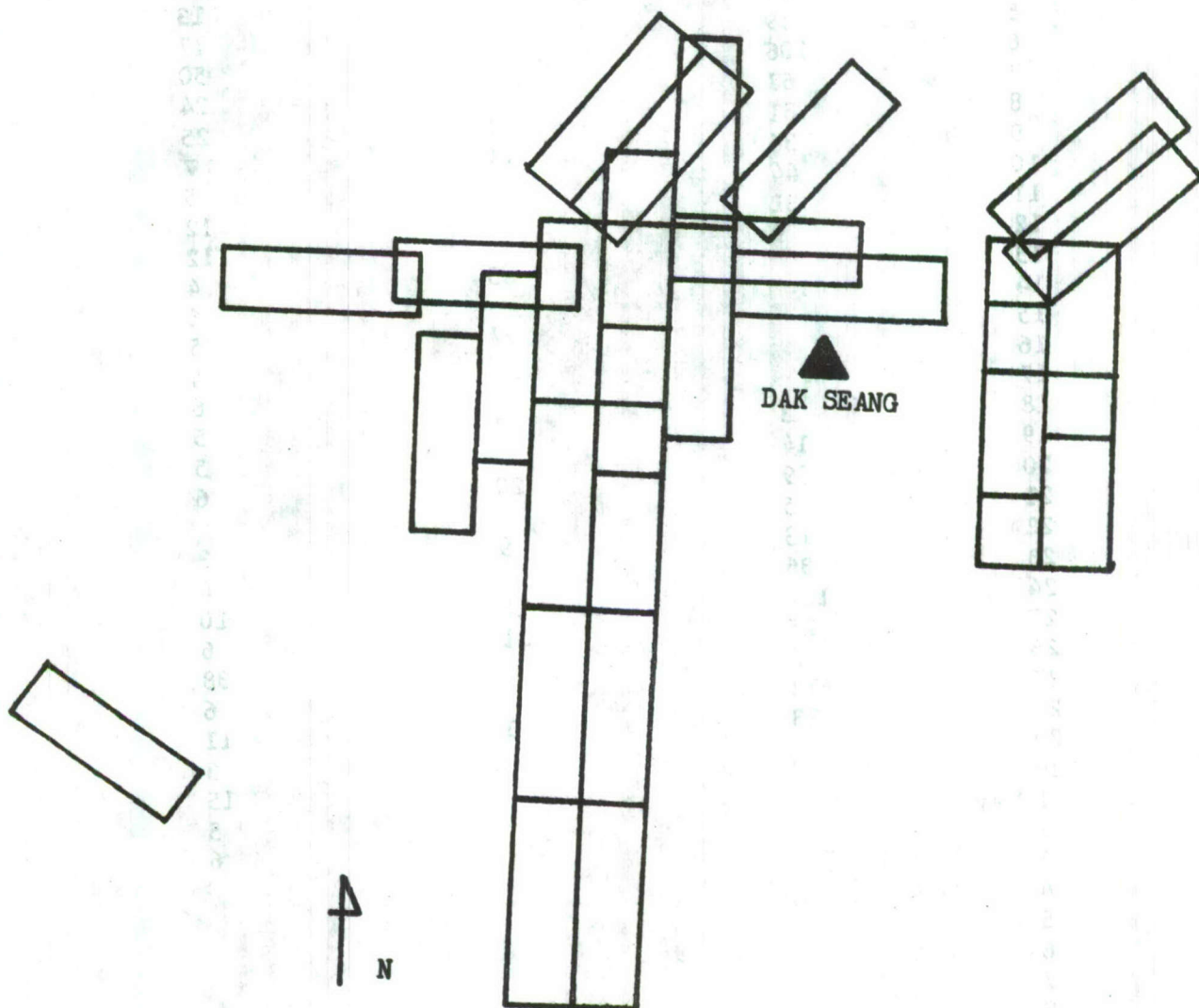
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APPENDIX II

ARC LIGHT STRIKES⁶⁹



NOTE: ARC LIGHT boxes vary in size, but a typical box is 1km by 3kms.

SCALE 1:100,000

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APPENDIX III

BOMB DAMAGE ASSESSMENT

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<u>DATE</u>	<u>CONFIRMED KILLED BY AIR</u>	<u>ESTIMATED KILLED BY AIR</u>	<u>SECONDARY EXPLOSIONS</u>
1 April		17	1
2		5	6
3			12
4	27		13
5	59		17
6	106		50
7	67		24
8	81	5	25
9	36	30	7
10	44		5
11	31		12
12	9		12
13		5	4
14		7	6
15			5
16			4
17			6
18	3	7	5
19	14		5
20	39	20	6
21	5		
22	13	9	3
23	36		4
24	111	12	10
25	25	31	6
26	2		38
27	12		6
28	23	3	11
29			3
30			15
1 May			5
2			6
3			
4			
5			
6			
7			
8			
TOTALS	743	151	338

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APPENDIX IV

AIR SUPPORT SORTIES - CAMP DAK PEK ⁷¹

<u>DATE</u>	<u>FIGHTERS</u>	<u>GUNSHIPS</u>
12 April	54	4
13	42	6
14	52	5
15	46	4
16	16	3
17	31	-
18	13	2
19	8	-
20	2	-
21	26	-
22	18	-
23	16	-
24	7	-
25	3	-
26	4	-
27	5	1
28	4	1
29	6	-
30	-	-
1 May	6	-
2	2	-
3	10	1
4	6	-
5	-	-
6	2	-
7	-	-
8	-	-
TOTALS	379	27

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APPENDIX V

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AERIAL RESUPPLY AT DAK SEANG

<u>DATE</u>	<u>SORTIES</u>	<u>PALLETS DROPPED</u>	<u>POUNDS DROPPED</u>	<u>PER CENT RECOVERABLE</u>
1 April	3	12	9,850	100
2	13	52	45,132	88
3	16	64	57,639	96
4	15	60	55,950	70
5	7	28	29,521	72
6	6	17	19,836	26
7	6	18	22,750	100
8	6	18	23,190	100
9	7	21	26,508	96
10	7	21	27,028	96
11	6	18	22,998	100
12	6	18	20,160	100
13	3	9	12,000	100
16	2	6	8,386	100
17	2	6	8,863	100
22	2	6	6,955	100
23	4	12	15,000	100
24	2	6	7,570	100
25	2	6	7,570	100
26	2	6	9,060	100
27	2	6	8,980	100
28	2	6	8,630	100
29	2	6	9,005	100
30	2	6	9,160	100
1 May	2	6	8,980	100
7	2	13	12,980	100
TOTALS	129	447	493,701	94

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APPENDIX VI

AERIAL RESUPPLY AT DAK PEK

<u>DATE</u>	<u>SORTIES</u>	<u>PALLETS DROPPED</u>	<u>POUNDS DROPPED</u>	<u>PER CENT RECOVERABLE</u>
13 April	4	26	30,859	95
15	3	28	28,307	100
16	3	28	27,477	100
17	3	28	23,088	100
18	3	28	23,795	100
21	5	34	39,424	100
22	3	28	19,590	100
23	2	14	14,650	80
24	1	7	7,680	100
25	2	14	15,700	100
26	2	14	15,900	100
TOTALS	31	249	246,470	97.7

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FOOTNOTES

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1. (C) Msg 101000Z Apr 70, CG IFFORCEV to CG 7AF.
2. (C) "Combat Operations After Action Report, Dak Seang Campaign (1 April - 8 May 1970)," II DASC, p. 4. Hereinafter referred to as, DASC Report. Doc. 1.
3. (C) Ibid.
4. (C) Ibid.
5. (S) "Combat After Action Report for the Battle of Dak Seang," Advisory Team 24, p. 8. Hereinafter referred to as, Army Report. CHECO microfilm cartridge, TS-82, 7AF-71-DOA-00004.
6. (S) Ibid.
7. (S) Ibid.
8. (C) Interview, Major Marshall W. Dickson, Jr., C-7 Aircraft Commander, 483 TAW, 31 Dec 70.
9. (U) DASC Report, p. 4.
10. (U) Briefing Folder, "Dak Seang Special Forces Camp," undated.
- ✓ 11. (FOUO) Larivee, Roger P., Colonel, Mission Commander's Report of Dak Seang Aerial Resupply Operation, 1 through 12 April 1970, p. II-1. Hereinafter referred to as, Larivee Report. Doc. 2.
12. (S) Ltr, Fifth Special Forces Group (Airborne) to Ambassador Bunker, Subj: Fact Sheet for Ambassador Bunker, 12 Jan 70.
13. (S) Msg 130740Z Feb 70, CG IFFORCEV to COMUSMACV.
14. (S) Project CHECO Report, "USAF Support of Special Forces in SEA," 10 Mar 69, p. 13.
15. (C) Interview, Lt Col Eldon D. Mortenson, Senior II CTZ Air Liaison Officer, 29 Dec 70. Hereinafter referred to as, Mortenson Interview.
16. (S) Army Report, p. 34.

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17. (C) DASC Report, p. 5.
18. (S) Army Report, p. 34.
19. (C) DASC Report, p. 5.
20. (S) Army Report, pp. 35 and 36.
21. (C) DASC Report, p. 5.
22. (C) Army Report, p. 36.
23. (C) DASC Report, p. 28.
24. (S) Army Report, pp. 36 and 37.
25. (C) DASC Report, p. 6.
26. (S) Army Report, p. 38.
(C) DASC Report, p. 11.
27. (S) Army Report, p. 40.
28. (C) DASC Report, pp. 6 and 7.
29. (C) Ibid, p. 12.
30. (C) Ibid, p. 7.
31. (C) Ibid.
32. (S) Army Report, pp. 44 and 45.
33. (S) Ibid, pp. 45-48.
34. (S) Ibid, pp. 49-51.
35. (S) Ibid, pp. 51-53.
36. (S) Ibid, pp. 54-55.
(C) DASC Report, p. 31.
37. (S) Army Report, pp. 55-57.
(C) DASC Report, p. 17.
38. (C) DASC Report, p. 8 and pp. 26-27.

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39. (C) Mortenson Interview.
(C) Interview, Maj James L. McGuffey, a FAC at Dak Seang,
(C) 6 Jan 71. Hereinafter referred to as McGuffey Interview.
DASC Report, pp. 18 and 19.
40. (C) DASC Report, p. 19.
41. (C) Ibid.
(C) PACAF (DOOF) Report Review, 30 Mar 71.
42. (C) Mortenson Interview.
(C) DASC Report, pp. 21 and 22.
(C) McGuffey Interview.
(C) Interview, MSgt Donald D. Elletson, II DASC Intelligence,
(C) 6 Jan 71. Hereinafter referred to as Elletson Interview.
PACAF (DOOF) Report Review, 30 Mar 71.
43. (C) Ibid.
44. (C) McGuffey Interview.
(C) Elletson Interview.
(C) DASC Report, p. 22.
45. (C) McGuffey Interview.
(C) DASC Report, p. 25.
46. (S) Army Report, pp. 67, 69 and 103.
47. (S) Ibid.
48. (C) DASC Report, p. 23.
(C) McGuffey Interview.
49. (S) Army Report, pp. 103-106.
50. (FOUO) Larivee Report, pp. II-1 and II-2.
51. (FOUO) Ibid, p. II-2.
52. (FOUO) Ibid, p. II-3.
53. (FOUO) Ibid, pp. II-4 and II-5.
54. (FOUO) Ibid, pp. II-5 and II-6.
55. (FOUO) Ibid, pp. II-6 through II-8.
56. (FOUO) Ibid, pp. II-8 through II-11.

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57. (FOUO) Larivee Report, p. III-1.
(C) Mortenson Interview.
(C) McGuffey Interview.
(C) Interview, Col Stephen J. King, Vice Commander, 483 TAW, 29 Dec 70. Hereinafter referred to as King Interview.
58. (FOUO) Larivee Report, p. IX-1.
(C) Taped summary of airdrop operations, Major Ben H. Swett, 315th TAW, undated.
59. (FOUO) Larivee Report, p. III-2.
(C) Interview, Capt James G. Shickles, C-7 Aircraft Commander, 483 TAW, 30 Dec 70. Hereinafter referred to as Shickles Interview.
(S) Msg 060819Z Apr 70, II DASC to 7AF TACD.
60. (FOUO) Larivee Report, p. III-3.
61. (FOUO) Larivee Report, pp. III-3, III-4, and VII-1.
(C) Shickles Interview.
(C) Mortenson Interview.
(C) King Interview.
62. (FOUO) Larivee Report, p. II-9.
(C) King Interview.
63. (FOUO) Larivee Report, p. IX-1.
(C) King Interview.
64. (S) Project CHECO Report, "USAF Support of Special Forces in SEA," 10 Mar 69, p. 11.
65. (S) Army Report, p. 73.
66. (C) DASC Report, p. 35.
67. (C) Ibid, pp. 29-32.
68. (C) DASC Report, p. 28.
69. (S) Army Report, p. 63.
70. (C) DASC Report, pp. 29 and 30.
71. (C) Ibid, p. 31.
72. (C) DASC Report, p. 33.
(FOUO) Larivee Report, p. X-B-1.
73. (C) DASC Report, p. 34.

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GLOSSARY

ALCC	Airlift Control Center
ARVN	Army of the Republic of Vietnam
CC	Command and Control
CFSCC	Combined Fire Support Coordination Center
CIDG	Civilian Irregular Defense Group
CTZ	Corps Tactical Zone
DASC	Direct Air Support Center
DZ	Drop Zone
FAC	Forward Air Controller
FSB	Fire Support Base
GVN	Government of South Vietnam
IR	Infrared
LOC	Line of Communication
MSF	Mobile Strike Force
MSL	Mean Sea Level
NVA	North Vietnamese Army
PW	Prisoner of War
RVN	Republic of Vietnam
SF	Special Forces
SHADOW	AC-119G Gunships
STINGER	AC-119K Gunships
STZ	Special Tactical Zone
TAW	Tactical Airlift Wing
TIC	Troops in Contact
TUOC	Tactical Unit Operations Center