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Contemporary
Historical
Examination of
Current
Operations
REPORT

IV DASC OPERATIONS (U)

1965 - 1969

1 AUGUST 1969

HQ PACAF
Directorate, Tactical Evaluation
CHECO Division

Prepared by:
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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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PROJECT CHECO REPORTS

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.



MILTON B. ADAMS, Major General, USAF
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2. DI 1
(b) 19AF(DI) 1
(c) USAFSOF(DO) 1

(3) WINGS

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(b) 4TFW(DO) 1
(c) 23TFW(DOI) 1
(d) 27TFW(DOI) 1
(e) 33TFW(DOI) 1
(f) 64TAW(DOI) 1
(g) 67TRW(C) 1
(h) 75TRW(DOI) 1
(i) 316TAW(DOP) 1
(j) 317TAW(EX) 1
(k) 363TRW(DOC) 1
(l) 464TAW(DOIN) 1
(m) 474TFW(TFOX) 1
(n) 479TFW(DOF) 1
(o) 516TAW(DOPL) 1
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(b) DPLF 1
(c) DM 1
(d) DI 1
(e) OA 1
(f) HI 1

(2) AIR FORCES

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(b) 15AF(DI) 1

(3) AIR DIVISIONS

(a) 3AD(DO) 3

c. MAC

(1) HEADQUARTERS

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(b) MAOCO 1
(c) MACHO 1
(d) MACOA 1

(2) AIR FORCES

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(d)	37TFW(DCOI)	1
(e)	56SOW(WHD)	1
(f)	347TFW(DCOOT)	1
(g)	355TFW(DCOC)	1
(h)	366TFW(DCO)	1
(i)	388TFW(DCO)	1
(j)	405TFW(DCOA)	1
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(l)	460TRW(DCOI)	1
(m)	475TFW(DCO)	1
(n)	633SOW(DCOI)	1
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m. USAFE

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(c)	17AF	
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2.	OID	1

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(b)	36TFW(DCOID)	1
(c)	50TFW(DCO)	1
(d)	66TRW(DCOIN-T)	1
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k.	Senior USAF Representative, US Army Field Artillery School.	1

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD	xi
CHAPTER I - INTRODUCTION	1
Tactical Air Control System	1
IV DASC	2
CHAPTER II - IV DASC OPERATIONS, 1965-1968	4
Establishment	4
Equating Activities - 1965-1968	5
Summary	9
CHAPTER III - IV DASC 1969	11
Airstrike Control System	11
VNAF DASC Operations	13
VNAF FACs	15
SPAT Operations in the Delta	20
Command and Control	24
Immediate Air Request Response Time	26
Political Clearances	28
CHAPTER IV - SUMMARY	31
FOOTNOTES	
Chapter I	34
Chapter II	34
Chapter III	36
APPENDIXES	
I. (S) Total A-1 Sorties Flown in IV CTZ, 1965-Jun 1969	41
II. (S) Total F-100 Sorties Flown in IV CTZ, 1965-Jun 1969	42
III. (S) Total B-57 Sorties Flown in IV CTZ, 1965-Jun 1969	43
IV. (S) Total AC-47 Sorties Flown in IV CTZ, 1965-Jun 1969	44
V. (S) Total F-5 Sorties Flown in IV CTZ, 1965-Jun 1969	45
VI. (S) Total F-4 Sorties Flown in IV CTZ, 1965-Jun 1969	46
VII. (S) Total A-37 Sorties Flown in IV CTZ, 1965-Jun 1969	47
VIII. (S) Total O-1 Sorties Flown in IV CTZ, 1965-Jun 1969	48
IX. (S) SPAT Sorties, Jul-Sep 1969	49
GLOSSARY	50

[REDACTED]

FIGURES

Follows Page

1. (C) Deployment of Forces	xi
2. (U) Tactical Air Control System	2
3. (U) IV Corps Tactical Zone	2
4. (S) ARVN Division of IV CTZ	6
5. (S) IV DASC Direct Air Request Net	12
6. (S) Tactical Air Resources	12
7. (S) IV DASC Organization	14
8. (S) Immediate Air Requests 1-31 March 1969	28

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FOREWORD

Emphasizing the current operation of IV DASC, this CHECO Report is one of four depicting operations of the Direct Air Support Centers in the Republic of Vietnam from 1965 to August 1969. Two events deserve special recognition: first, the Vietnamization of the air war, particularly, tactical air control in IV Corps Tactical Zone; and second, the unique night operation which has achieved initial success in limiting, to a degree, the activity of the enemy in the Mekong Delta.

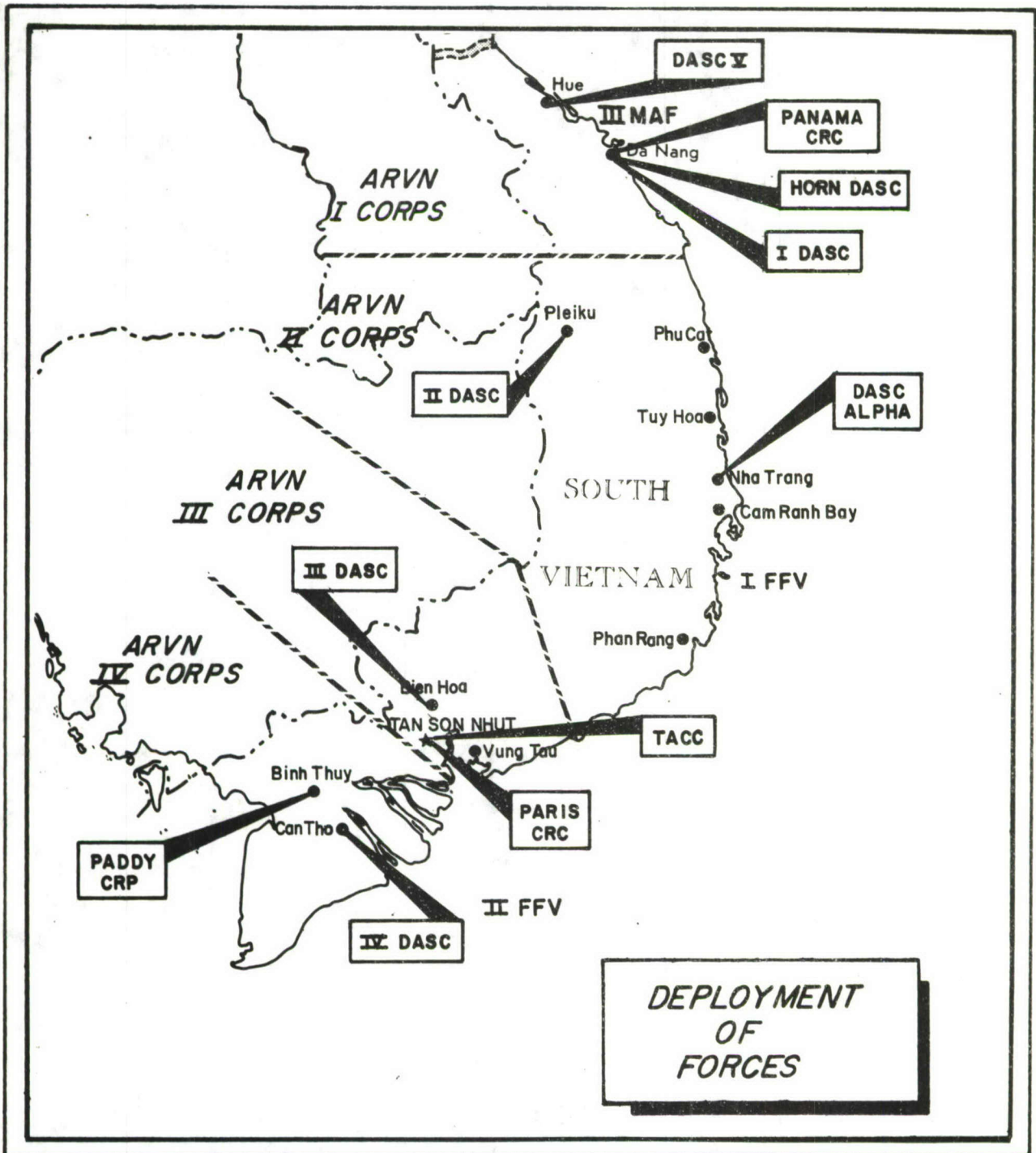


FIGURE 1

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CHAPTER I
INTRODUCTION

Tactical Air Control System

The heart of the Free World Military Assistance Forces (FWMAF) air support effort in Vietnam was the Tactical Air Control System (TACS) which, though manned by the personnel of several nations, was patterned directly after the USAF TACS.^{1/} At the core of this system was the Tactical Air Control Center (TACC) located at Tan Son Nhut Air Base. Its purpose was to coordinate and control the total effort of U.S., Vietnamese Air Force (VNAF), Royal Thai, and Royal Australian Air Forces in South Vietnam.^{2/}

Directly subordinate to the TACC were the Direct Air Support Centers (DASCs). There were seven of these centers in South Vietnam in October 1969, one for each of the four Corps Tactical Zones (CTZ), and three special mission DASCs, Alpha, Horn, and Victor, located in the northern portions of South Vietnam.^{3/} (Fig. 1.) The DASCs served as an extension of the TACC and provided "fast reaction capability to satisfy requests from the ground forces for close air support, tactical air reconnaissance support, and tactical airlift support."^{4/} They also provided coordination between ground and air elements in their area including, in addition to tactical and reconnaissance missions, herbicide, psychological warfare, and B-52 operations.^{5/}

Operating in the field and providing the DASCs, and through them the TACC, with requests for air support were the Tactical Air Control Parties (TACPs), each headed by an Air Liaison Officer (ALO). He was a key member of the ground

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commander's staff and was his expert on airpower. The ALO also supervised the Forward Air Controllers (FACs) in his area. The latter were the eyes of the ground forces, providing reconnaissance, radio relay, airstrike direction, artillery spotting, and bomb damage assessments. They were also the link between the troops in battle and the DASC in requesting immediate air support.^{6/} (Fig. 2.)

IV DASC

Physically located in permanent facilities at Can Tho, IV DASC was the Corps headquarters for IV Corps Tactical Zone (CTZ). The area it controlled was physically identical to IV CTZ. (Fig. 3.) Characterized by lowland, with elevations rarely more than 50 feet above sea level, this area is the heart of the Mekong Delta. It is interlaced with canals and ditches, serving as main arteries of transportation along which the villages are spread. An area of dense population, it contains nearly half the population of South Vietnam, and exhibits a predominant rice agriculture. Average rainfall varies from 50 to 120 inches--nearly all falling between May and October--often limiting the air support capability.^{7/}

The Delta, a Viet Cong stronghold for many years, is also the center of the dissident religious sect, the Hoa Hao. The problems posed by this situation are further compounded by the physical difficulty faced by the Vietnamese government in getting its program, services, and authority out to the remote villages.^{8/}

Enemy activity in the IV CTZ is generally guerrilla or small force type, although he possesses the ability to mount regimental size operations if needed.^{9/}

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TACTICAL AIR CONTROL SYSTEM

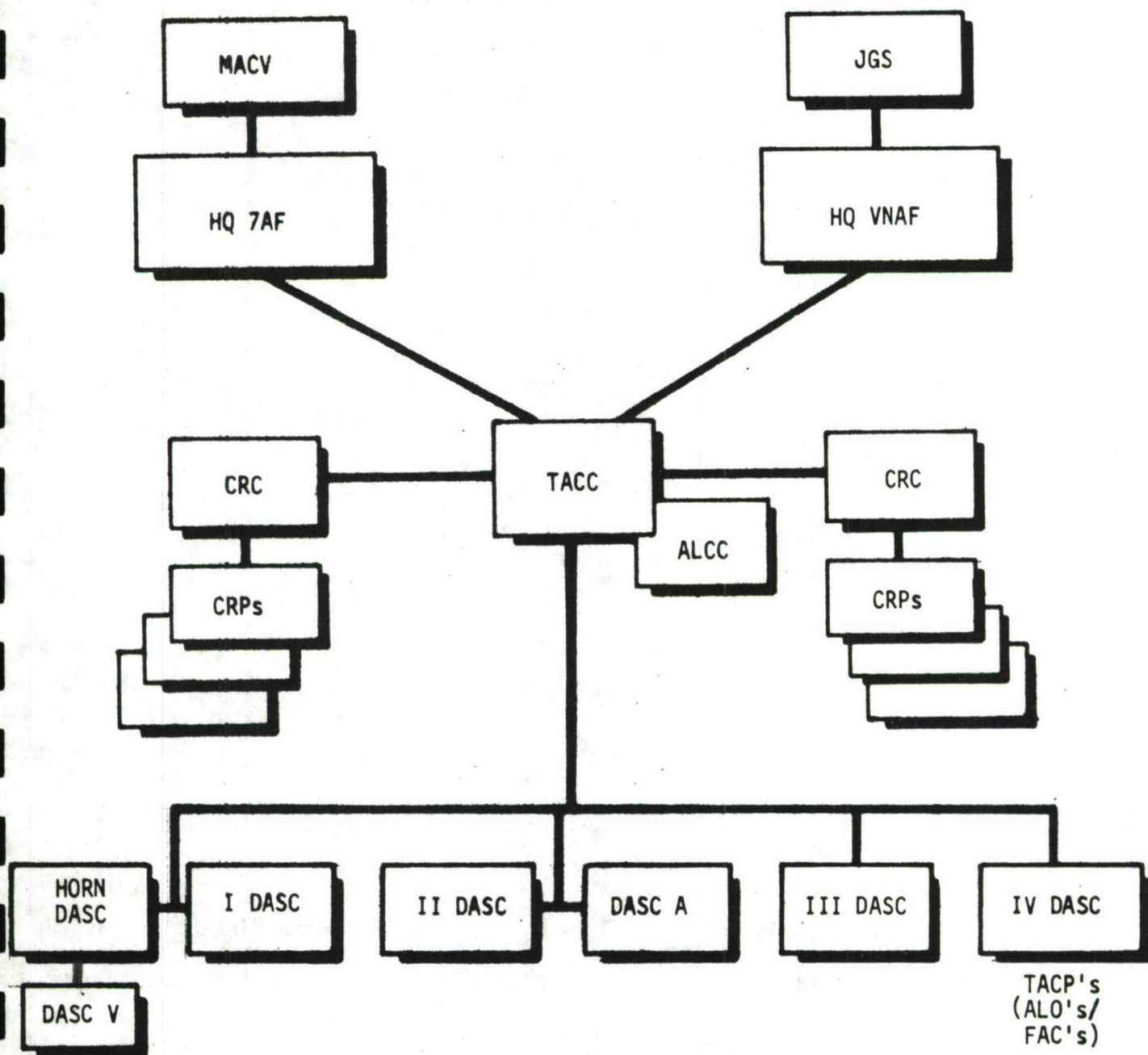


FIGURE 2

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IV CORPS TACTICAL ZONE

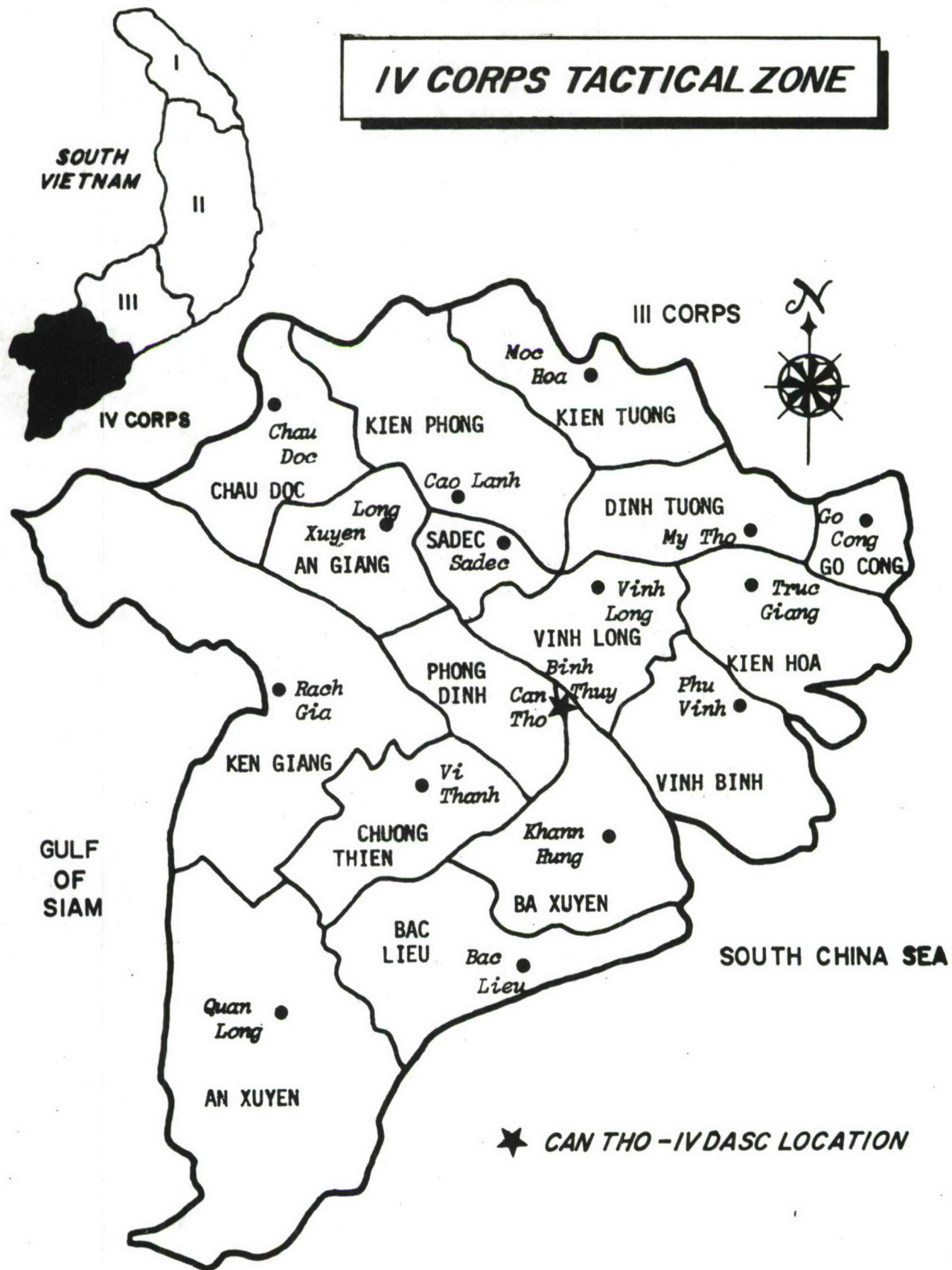


FIGURE 3

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The IV CTZ was unique in that it was primarily a Vietnamese operation from the beginning of the conflict. Aside from the Mobile Riverine Force and small Special Forces units, no U.S. troops normally operated in the area.^{10/} It was not until Operation DECKHOUSE V, in January 1967, that U.S. forces were introduced into IV CTZ in other than advisory roles.^{11/} This operation ushered in a period of about two years during which the 9th Infantry operated in some force in the Delta.^{12/} The USAF had not stationed aircraft in any strength in IV CTZ either. The FAC O-1 and AC-47 gunships, and later the O-2A FAC aircraft at Binh Thuy were the only long-term residents. The majority of airstrikes directed into IV DASC's area of responsibility came from Bien Hoa, Phan Rang, and Cam Ranh Bay, located in II and III CTZ.^{13/}

The IV DASC, with its attendant operations, was by virtue of the primarily Vietnamese force makeup in IV CTZ, the focal point of the program to move VNAF personnel into key positions in the TACS and eventually have them assume complete responsibility for its operation. It was also the area of the most extensive in-country night FAC operation.

In summary, IV DASC functioned in a unique physical environment--the Delta. Besides its constant effort to integrate the Vietnamese Air Force, it supported a primarily Army of Republic of Vietnam (ARVN) force with aircraft stationed outside its area of responsibility.

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CHAPTER II

IV DASC OPERATIONS, 1965-1968

Establishment

The form of the Tactical Air Control System in Vietnam evolved over the course of several years. The TACS was established with the publication of Thirteenth Air Force Operations Plan 226-61 on 30 December 1961. This plan did not create the system as it later existed, but rather set forth one consisting of an Air Operations Center (AOC), a Control and Reporting Center, two Control and Reporting Posts, two Air Support Operations Centers, Air Liaison Officers, and Forward Air Controllers. This initial system did not have a specific Air Support Operations Center (the equivalent of the DASC) for the IV Corps Tactical Zone,^{1/} because U.S. involvement there was minimal and the ARVN was not amenable to the concept at that time.^{2/} The system became operational in January 1962, with a Vietnamese AOC Director and an American Deputy, a command arrangement that was still in effect in October 1969.

Changes were not long in coming. In March 1963, two more Air Support Operations Centers were established, one in III CTZ and another to serve the Delta in IV CTZ. By late June 1964, there were increasing numbers of ALOs and FACs in the field and Tactical Air Control Parties were being organized. By the end of that year, these TACPs were present in all four CTZs. On 15 August 1965, the Air Operations Center at Tan Son Nhut was redesignated the Tactical Air Control Center and the Air Support Operations Centers became Direct Air Support Centers.^{3/} The DASCs were located at the headquarters of each of the four CTZs and were jointly manned by USAF and VNAF personnel.^{4/} These DASCs

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had the task of controlling and coordinating USAF/VNAF airstrikes, as well as those of U.S. Navy (USN) and U.S. Marine Corps (USMC) aircraft which were allocated to them for support operations.^{5/} The operation of USN carrier-based aircraft was authorized in IV CTZ,^{6/} and a significant number of missions were flown by these units.^{7/} There was also a requirement, deleted in February 1965, that a Vietnamese observer be in all liaison aircraft flying forward air control missions.^{8/} (This requirement was a direct aspect of the political clearance situation discussed in Chapter III.)

The IV CTZ was unique to the South Vietnamese operation in 1965 in two respects. First, there were no U.S. forces committed there, with the exception of advisers and the Mobile Riverine Force (MRF).^{9/} Second, there were no U.S. tactical fighter aircraft based in IV CTZ. Those USAF aircraft that were stationed in the area included O-1s, HH-43 helicopters, U-10s, psychological warfare C-47s and AC-47s, all based at Binh Thuy.^{10/} A majority of the tactical airstrikes by jet aircraft for IV CTZ came from USAF aircraft based at Bien Hoa, Phan Rang, and Cam Ranh Bay. A significant amount of the overall support in the area came from the 74th Tactical Wing (VNAF) flying A-1s out of Binh Thuy. This unit proved to be very effective in support of ARVN ground operations and was recommended for a Presidential Unit Citation for the period of 1 July 1966-30 June 1967.^{11/}

Equating Activities - 1965-1968

During 1964, the III and IV Corps Tactical Zones provided a great opportunity for the use of close air support.^{12/} The number of missions controlled by IV DASC in 1965 indicated this was still the case. This included the first

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appearance of the F-4 and B-52 in IV CTZ. The average number of sorties during the period was approximately 6,400 per month. Night operations also showed a steady increase, with some 550 sorties flown in support of outposts and watchtowers, primarily by the AC-47.^{13/} (APPs I-VIII.) The primary close air support aircraft was the A-1E/H, a significant reason for response times being as high as 1 hour and 40 minutes in some cases.^{14/} This was a far cry from the 1969 situation, which placed the entire area controlled by IV DASC, except the southernmost tip of Vietnam, within 15 minutes flying time from the fighter's scramble base.^{15/} (Fig. 4.)

On 1 April 1966, the Second Air Division was redesignated the Seventh Air Force; its headquarters was located at Tan Son Nhut Air Base. This change in designation had no effect on the operation of the TACC.^{16/} The actual force dispositions in IV CTZ also remained fairly stable with no sizable U.S. ground force units stationed in the area. There was a significant increase in the air activity, however, reflecting the general increase in activity nationwide. Both RANCH HAND defoliation and ARC LIGHT B-52 raids increased significantly as efforts to blunt the growing strength of the enemy were intensified.^{17/} IV CTZ was also the scene of a formal in-country indoctrination school for Forward Air Controllers, established at Binh Thuy AB in August 1966. This school was eventually used to train Korean, Australian, Vietnamese, and American personnel.^{18/}

On 6 January 1967, U.S. forces were introduced into the Delta region in force as a part of Operation DECKHOUSE V, a search-and-destroy mission.^{19/} This exercise ushered in a period of numerous search-and-destroy activities in the Delta area by the U.S. 9th Infantry. While close air support was required for

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**ARVN DIVISION
OF
IV CORPS TACTICAL ZONE**

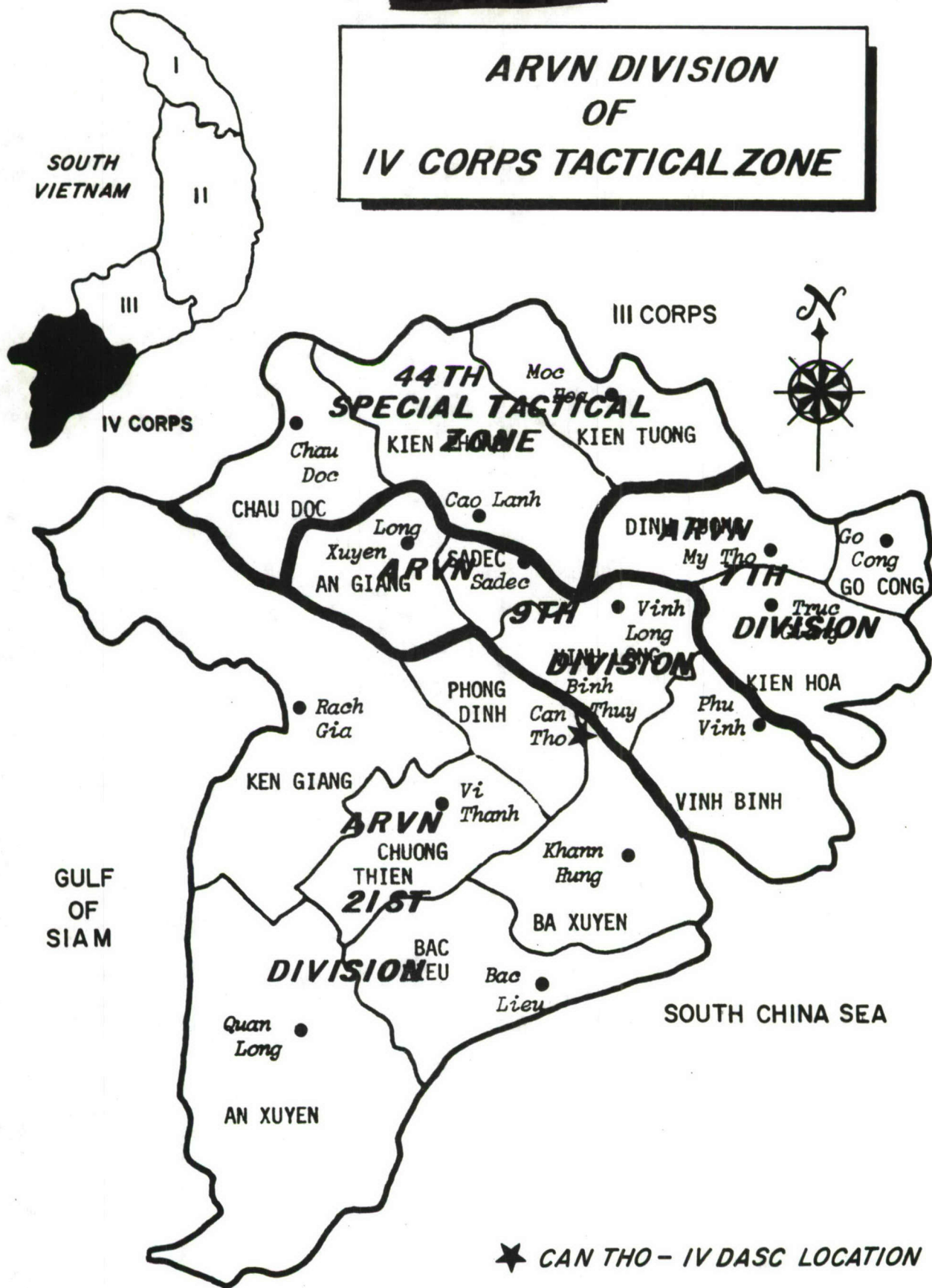


FIGURE 4

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these operations, the only significant sortie increase was for the AC-47.^{20/}

A problem area noted in some End-of-Tour Reports during 1966-67 was that of obtaining qualified FACs and simplifying the chain of command.^{21/} One effort to remedy the paucity of FACs was the establishment of the school at Binh Thuy.^{22/} The other problem, that of operational versus command control of FACs, was much more complex. It basically posed the situation created by having the FAC under the DASC for operational control, but under the Tactical Air Support Squadron (TASS) in terms of command control and support. One remedy suggested at the time was to make the DASC commander the TASS commander. This was not adopted and the problem remained, causing considerable controversy in 1969.^{23/}

Another problem area mentioned was the paucity of experienced intelligence personnel assigned to IV DASC, and the need for them to accompany the FAC on visual reconnaissance missions (VR).^{24/} Again, there was no evidence that this problem was considered significant, or that any effort was made to increase the number of intelligence officers assigned.

The increase in U.S. forces in IV CTZ did not bring any USAF Tactical fighter units into IV CTZ, but it resulted in a significant increase in the number of FACs in the area. This was further augmented by the FAC school at Binh Thuy;^{25/} however, a notable increase in psychological warfare missions was evident beginning in February 1967. This was due to an intensified effort to win the support of the people in the Delta. At the same time, the number of B-52 sorties decreased, due to the increased psychological warfare (psywar) effort, the higher priority of targets in other zones, and continuing problems

[REDACTED]

of dense population and accidental bombing deaths.^{26/}

One unique and vital function of IV DASC was to provide close air support for the Mobile Riverine Force (MRF) that operated in the waters of the Delta.^{27/} This combined Army-Navy force began full scale operations in June 1967. Although USAF played a very small role in its development, it employed the standard air/ground operations system used elsewhere in South Vietnam. In the case of the MRF, however, the TACP remained at brigade level rather than being detached to battalions, primarily because of insufficient facilities for the aircraft at battalion level.^{28/}

The airstrike request system and FAC operation, in conjunction with the MRF, were unique. Requests for air support which the 9th Infantry originated were generally worked through III DASC, since the II Field Force Vietnam (FFV), of which the 9th Infantry was a part, was located in the III CTZ at Bien Hoa. It was also possible for requests for air support to be sent through IV DASC, since the majority of MRF activity took place in the IV CTZ. Although the FACs for the MRF received support from the 22d TASS at Binh Thuy, they were under the 9th Division ALO in III CTZ. This was an unusual and, on the surface, confusing situation, but no problems were noted in the actual operation of the system.^{29/} The MRF was an outstanding example of interservice cooperation among the Air Force, Army, and Navy. In 1969, its operation was assumed by the ARVN.

On 1 January 1968, IV CTZ was reorganized by the ARVN, and the 44th Special Tactical Zone, comprised of three provinces bordering Cambodia, was established. The objective was to allow the 9th ARVN Division to concentrate in the central and central coastal areas.^{30/} This reorganization did not affect IV DASC until

[REDACTED]

1969, except to change slightly the source of VNAF air support requests from the field.

A significant change was made in the TACS on 10 March 1968 when a single management system for the use of tactical airpower was adopted. This change transferred the control over South Vietnamese-based USMC aircraft to the Seventh Air Force.^{31/} In some CTZs, this was very significant because of the large amount of Marine air being used. Since the Marines were not operational in IV CTZ, however, little Marine air was there, and this change created no significant impact for them. Neither did the move affect VNAF aircraft, since they had already been integrated into the TACS in the parallel structure existent since its inception in Vietnam. It also did not affect Navy air operations in support of the Mobile Riverine Force.

Two actions in IV CTZ in 1968 which reflected the ability of air support were CORONADO X and XI, conducted in April. In each of these operations, air support was provided by preplanned and immediate airstrikes. Airpower was particularly effective against fleeting ground targets and in preparing beaches and landing zones. The After-Action Reports of these operations gave universal praise to all who were involved in the TACS. Specifically, reaction times were singled out as being very satisfactory and air was cited as being particularly effective.^{32/}

Summary

During the years since its inception in 1965, IV DASC had evolved, as had the TACS, into an increasingly complex and refined tool for the control of tactical air. The heavy emphasis on ARVN and VNAF units had served to make it

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a testing ground for the continuing assumption of tactical air control by VNAF personnel. The changes in policies and operating procedures, which caused significant problems in other CTZs, for example, the single management for air in I CTZ, did not noticeably affect IV CTZ. There were only gradual changes in personnel strength and numbers of sorties handled, indicating the relative stability of both IV CTZ and IV DASC.

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CHAPTER III

IV DASC 1969

Integration of the Vietnamese Air Force was the focal point of IV DASC operations in 1969. By 31 December, this unit was programmed to assume all responsibility for the DASC and FAC functions of VNAF and USAF aircraft. Before discussing this very significant achievement in terms of Vietnamization of the war, a brief resume follows of the assets, responsibilities, and operation of the Direct Air Support Center.

Airstrike Control System

Directly responsible to the DASC in IV CTZ were the TACPs located with the 7th ARVN Division at ⁸Ben Tre and My Tho; the 9th ARVN Division at Sa Dec, Vinh Long, and Tra Vinh; the 21st ARVN Division at Bac Lieu, Soc Trang, Can Tho, Vi Thanh, Rach Gia, and Ca Mau; and the 44th Special Tactical Zone forces at Cao Lanh, Moc Hoa, and Chau Doc (Figs. 4, 5).^{1/} In addition to these ARVN forces, two brigades of the U.S. 9th Infantry remained in Kien Hoa Province during the first half of 1969, along with Special Forces units in the 44th Special Tactical Zone and Naval Forces of the MRF in the Delta. These units were linked by their TACP with the DASC and thus with the TACC by the Direct Air Request Net (DARN).

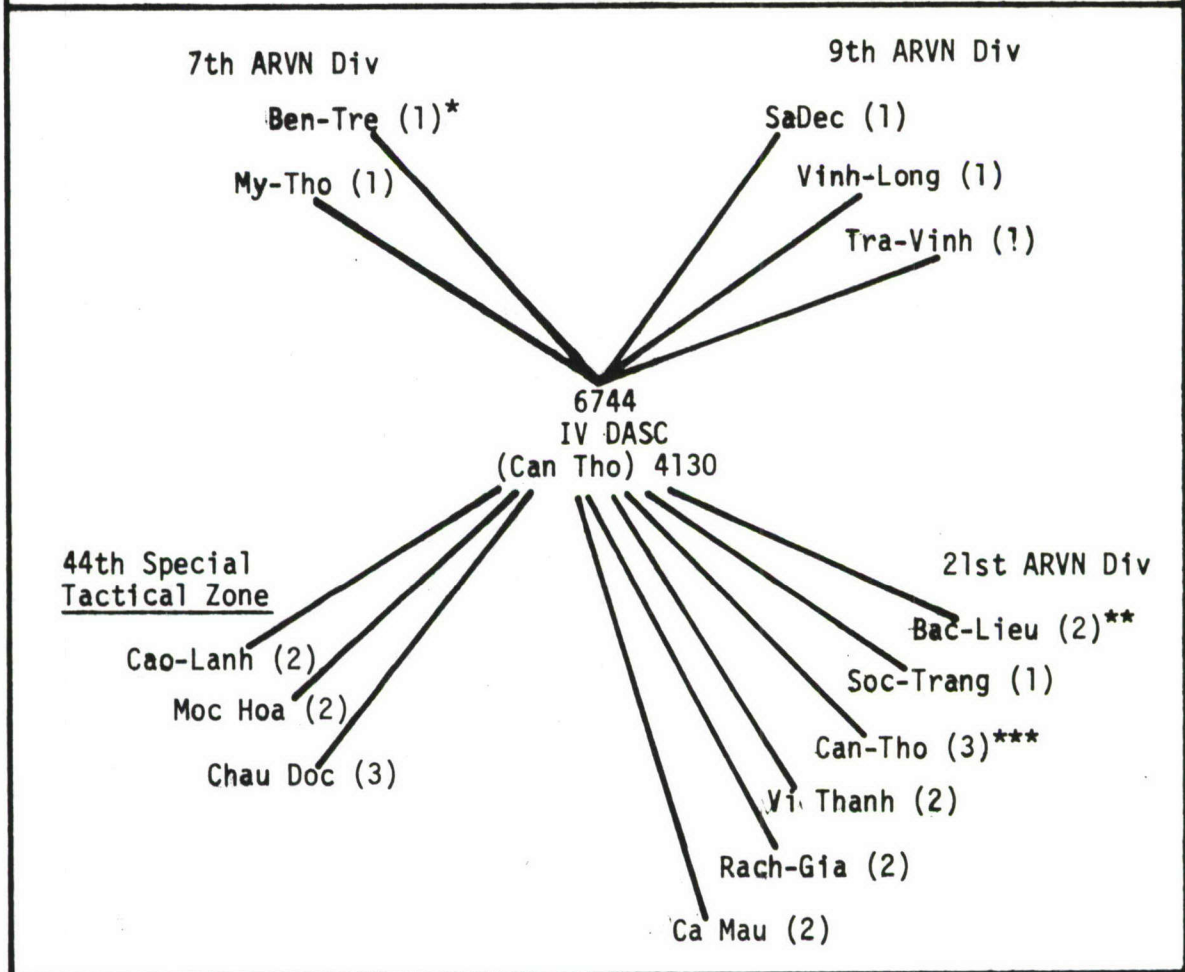
Available to support these forces were USAF F-100s at Bien Hoa, Tuy Hoa, Phan Rang, and Phu Cat; F-4s at Cam Ranh Bay; A-37s at Bien Hoa; and B-57s at Phan Rang. In addition, Royal Australian Air Force (RAAF) B-57s from Phan Rang, VNAF A-37s from Binh Thuy, A-1s and F-5s from Bien Hoa, were all utilized. Gunship support came from USAF AC-47s, AC-119s, and VNAF AC-47s located at Tan Son Nhut.^{2/} (Fig. 6.)

[REDACTED]

The VNAF and USAF employed the same operating procedures in the use of the DARN. In all cases, it was the ground force commander who requested air support. For example, if a FAC detected a large force which he thought might be hostile, he would notify the ground commander at the level concerned and recommend an airstrike. The request would be made by the ground force and proceed through parallel channels through the sector and division Tactical Operations Center (TOC) on the Army side and the sector and division TACP on the Air Force side. If approval were granted at all levels, the DASC was given the requirement. This might be filled by either diverting aircraft, which were airborne and allocated to the DASC for a preplanned strike, or by asking the TACC to scramble aircraft if they were available.^{3/}

After the DASC had been allocated the fighters, it supplied the information needed for rendezvous. The Control and Reporting Post (CRP), a radar site that would control the fighters, was notified by DASC of their call sign and ETA. In the case of IV DASC, this site was at Binh Thuy and was called PADDY CONTROL. This same information was passed to the TACP by the DASC, which then relayed it to the FAC who would control the strike. It was the DASC's responsibility to make certain the FAC and strike aircraft crews were briefed on matters of call signs, frequencies, coordinates, and other pertinent information. The FAC would contact the fighters, brief them on the situation, control the strike, and give them a Bomb Damage Assessment (BDA), which was also forwarded to the TACP and the DASC. The fighters were then released back to the CRP which vector-^{4/}ed them home.

IV DASC DIRECT AIR REQUEST NET



- *(1) - VNAF Primary
- ** - USAF Primary
- *** - USAF Only

Equipment

VNAF: KWM-2A-PRC-4+PRC-25
 USAF: KWM-2A-M-108-PRC-41

Operators

VNAF
 USAF

FIGURE 5

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TACTICAL AIR RESOURCES

TAC AIR

<u>UNIT</u>	<u>LOCATION</u>	<u>TYPE A/C</u>
3d TFW	Bien Hoa	F-100 & A-37
12th TFW	Cam Ranh Bay	F-4C
31st TFW	Tuy Hoa	F-100
35th TFW	Phan Rang	B-57 & F-100
37th TFW	Phu Cat	F-100
RAAF, Nr 2	Phan Rang	B-57
74th TFW (VNAF)	Binh Thuy	A-37
23d TFW (VNAF)	Bien Hoa	A-1 & F-5

RECONNAISSANCE

460th TRW	Tan Son Nhut	RF-4, RF-101 RB-57 & C-47
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Gunship/Flareship Support

3d SOS	Tan Son Nhut	AC-47
71st SOS	Tan Son Nhut	AC-119
33d Wing (VNAF)	Tan Son Nhut	AC-47 & C-47

Rescue

Det 10, 38th ARRS	Binh Thuy	HH-43
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Psychological Operations

5th SOS	Tan Son Nhut	C-47 & U-10
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VNAF DASC Operations

Nearly all Army units in the area of responsibility of IV DASC were ARVN. In addition, the only tactical airpower stationed in IV CTZ by mid-1969 was VNAF. Thus, IV DASC and IV CTZ seemed the logical place for VNAF assumption of tactical air responsibility. When the TACS was inaugurated in 1962 with a VNAF Director and a USAF Deputy, the joint manning had been carried down to the DASC level.^{5/} (Fig. 7.) Under this system, the USAF personnel basically controlled USAF air, and VNAF personnel controlled VNAF air. However, poor coordination and communications were quite evident. For example, on occasion, a set of USAF fighters and their USAF FAC would arrive at a target at the same time as a set of VNAF fighters and their VNAF FAC. Both had been diverted by the DASC, but neither side had known what the other had done.^{6/}

This basic situation remained until the early part of fiscal year 1969, when a comprehensive program was developed to enable the Vietnamese to become self-sufficient in the operation of the TACS.^{7/} The first step in this process in IV CTZ was to physically collocate the USAF and VNAF at every level. This did not mean merely physically establishing them in the same building or room but, as Lt. Col. William Huxley, Acting Deputy Director of IV DASC, phrased it: "Locate them so they can hold hands with each other."^{8/}

After achieving physical integration, the next step at the DASC was communications integration. Both USAF and VNAF communications were put into common channels which forced the VNAF personnel at IV DASC to talk with USAF personnel at the TACC in English. It should be noted that all VNAF DASC personnel were able to speak at least basic English.^{9/} An unexpected problem arose

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at that point, however. The VNAF officer was initially reluctant to take over a job that he had long observed but never done alone. Thus, a great deal of diplomacy had to be exercised on the part of the USAF officer. "They had to be reassured every step of the way and repeatedly, on their ability to use English, their knowledge of the job, etc.," said Major DeCarlo, IV DASC Duty Officer.^{10/}

As both sides became accustomed to this situation, the USAF personnel at the DASC assumed less and less action with the TACC. By July 1969, VNAF duty officers were handling a majority of the communications of the DASC. The VNAF did not assume control of ARC LIGHT, herbicide, or resupply missions, and there were no plans for them to do so in the future.^{11/}

The development of bilingual DASC forms was also a very significant step. This accomplished two vital goals. First, the forms enabled USAF and VNAF personnel to understand and check what the other was doing. Second, they were designed so that Vietnamese was the primary language with English in parentheses. The adoption of these forms was accompanied by a change in status boards and other vital displays to a bilingual, Vietnamese first, format. These changes also became an overt manifestation of the shift to VNAF operation.^{12/}

The changes at the DASC which made the VNAF the primary operators were accompanied by a significant change at the TACP level. Although ALOs in place had been with the VNAF for some time, there had been a reluctance on the part of ARVN commanders to deal with them. This was primarily due to rank disparity; since the ALO was generally a Lieutenant, the ARVN commander preferred to deal with the American ALO, a Major or Lt. Colonel. Coincident with the effort to

IV DASC ORGANIZATION

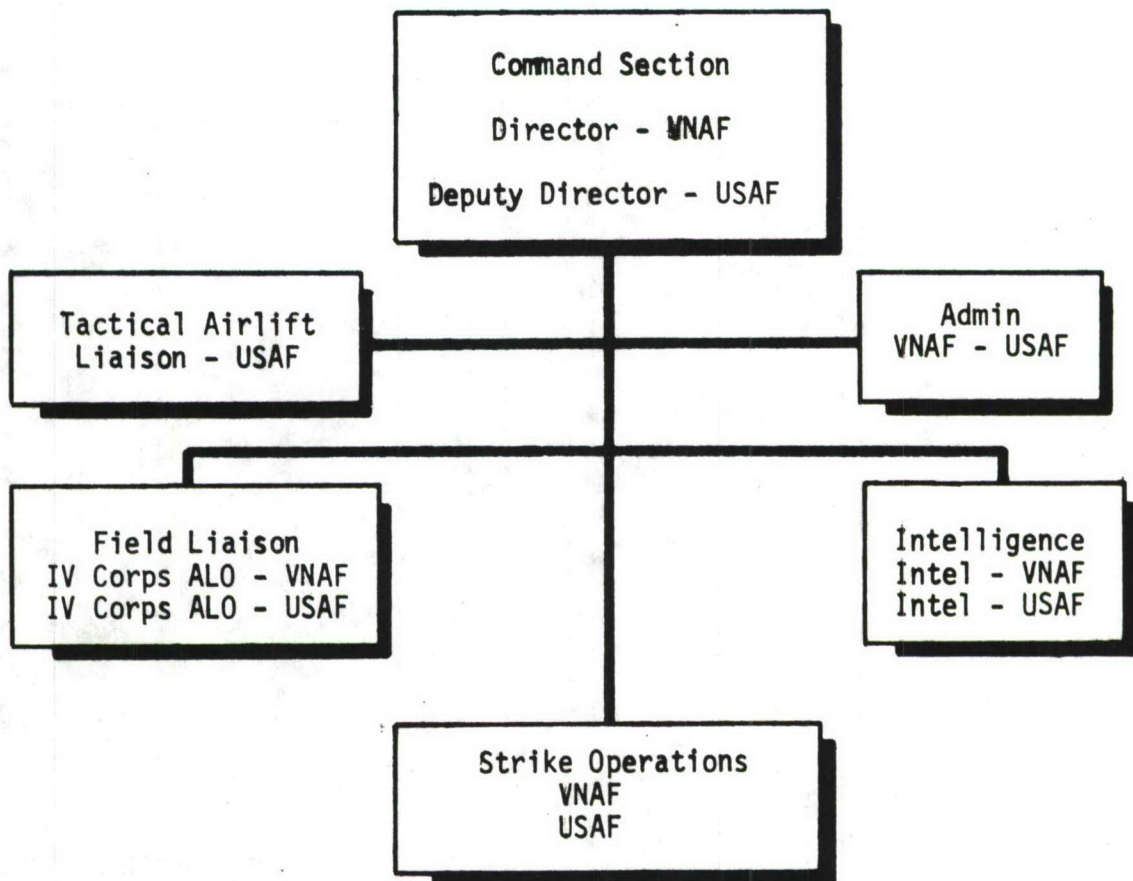


FIGURE 7

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transfer operation of the DASC to the VNAF, action was taken to make the VNAF ALO solely responsible for air requests in the field. This forced the ARVN field commander to seek out his VNAF ALO for the first time, if he wanted air support. In effect, it meant that if the commander did not want to communicate with his lieutenant ALO, he did not get any air support. This move successfully eliminated one of the major stumbling blocks to VNAF control, although not all the ARVN field commanders were pleased with the arrangement.^{13/}

Further evidence of continued progress was the practice of having the VNAF train all of their new assignees coming to duty at the DASC. This immediately impressed upon the new officer that the VNAF was in charge, and helped start him off with a sense of responsibility and accomplishment.^{14/}

The success of the program at IV DASC could be seen from the relatively rapid assumption of VNAF control. On 15 December 1968, the VNAF were given responsibility for the Direct Air Request Net for the ARVN 7th and 9th Divisions. On 15 April 1969, they also took complete DASC duty officer responsibility for these areas.^{15/} These moves proved successful and on 1 July 1969, the VNAF assumed DASC duty officer and DARN responsibility in IV CTZ for all operations other than the solely USAF ones noted previously. By the target date of 1 January 1970, there was to be only one U.S. adviser left with each TACP in IV CTZ, and enough duty officers at the DASC to monitor exclusively USAF operations, other than tactical air support.^{16/}

VNAF FACs

Of equal significance in the Vietnamization of the war in IV CTZ was the preparation of the VNAF to assume all FAC operations other than that of the

[REDACTED]

SPAT (night operation) FACs. This process began in June 1967 when VNAF FACs were deployed throughout IV CTZ for reconnaissance but not strike control. In February 1968, it was recommended that the VNAF be given the total ALO/FAC mission for the 7th ARVN Division. After a short period of OJT by USAF FACs, the responsibility was to pass solely to the VNAF. This was a slow process, however, for supply problems seriously hindered the deployment of the VNAF. Nevertheless, by July 1968, VNAF FACs were directing up to 75 percent of the VNAF airstrikes.^{17/}

A program designed to place VNAF FACs in control of all airstrikes in IV CTZ began in early 1969.^{18/} Training was conducted at My Tho in Kinh Tuong Province in IV CTZ. Those trained initially were VNAF observers. These were English speaking VNAF personnel, not necessarily pilots, who flew in the rear seat of an O-1, with a VNAF pilot, and directed airstrikes. This was in keeping with the VNAF conviction that a two-man FAC team was better than the USAF one-man system.^{19/}

In the initial training process, a qualified VNAF observer was put with a USAF FAC. After becoming familiar with certain standard English terms, he would begin to conduct USAF airstrikes under the FAC's supervision. All of these observers, it should be noted, had considerable experience controlling VNAF airstrikes. After approximately 20 controlled strikes, the observer was certified to put in USAF airstrikes. The first VNAF-controlled USAF airstrike was flown on 1 April 1969. By 1 July, VNAF crews were controlling all tactical airstrikes for the ARVN 7th Division. The program was continued and by 1 November 1969, there were to be 17 English speaking observers certified to

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control USAF airstrikes.^{20/}

In the process of checking out the VNAF observers, it was discovered that several pilots also had an acceptable English language capability. Since there was no formal English training at the My Tho facility, these pilots had gained their fluency in other ways, some through attending fighter pilot upgrading in the United States. On 1 September 1969, a program was started to train these personnel to control USAF airstrikes in the one-man concept of the USAF. The completed plan called for 20 of these officers to be certified for USAF strikes by 1 November 1969. In the training process, the VNAF pilot rode in the front seat and controlled the strike, while the USAF instructor in the rear seat supervised and maintained Short Round responsibility.^{21/} The quality of these VNAF FACs can be appreciated by noting that the low time pilot in the program had 2,300 hours of flying time. While there were still some VNAF FACs who could not speak English and who controlled only VNAF strikes, the 20 pilots and 17 observers gave the VNAF the capability of 37 English speaking, USAF certified crews.^{22/}

The original program for VNAF assumption of the DASC and FAC functions for VNAF and USAF aircraft was scheduled for 1 November 1969. This was a target date based on the assumption that on 31 October 1969, the VNAF 116th Liaison Squadron at Binh Thuy would be augmented with ten O-1 aircraft. This augmentation did not take place on that date. As a result, a request for the early activation of the 122d Liaison Squadron with 10 aircraft and a personnel cadre was presented to 7AF and MACV. This program was still under consideration at the end of this reporting period, but an early activation of the 122d was

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anticipated and the take over date for the VNAF in IV CTZ was set at 31 December 1969.^{23/} When the full complement of 30 aircraft would be present with the 116th and 122d Liaison Squadrons, the VNAF would be able to man them with an English speaking, USAF certified crew to an aircraft ratio of 1.25 to 1.^{24/} The ratio would be approximately 1.8 to 1 until the 122d was activated.

Several reasons may be cited for the success of this program and why the IV CTZ was the first to adopt it. Patience was repeated time and again as the key to the transition. This meant patience not only on the part of the USAF FAC, but also on the part of the personnel at the TACC who had to get used to speaking with the VNAF officers at the DASC. The USAF fighter pilots were also cited for their willingness to talk slowly, make dry runs, and help the VNAF FAC as they controlled them in English. One of these pilots noted that initially the dry runs seemed excessive, but this situation was corrected as language proficiency improved. He also pointed out that the VNAF FAC was very competent and controlled the strike very satisfactorily, once his language was perfected.^{25/} There was also the factor of attitude and the willingness of USAF officers, both in the DASC and the TACP to help their VNAF counterparts and to sit back and watch as someone else took over their jobs.^{26/}

The IV CTZ was the logical place for this VNAF assumption, since it was almost completely an ARVN operation. This meant that no matter which Air Force responded to the call for tactical air support, the VNAF FAC would be controlling airstrikes for ARVN forces. This posed one very significant problem which remained unanswered and which might hold the key to the future success of VNAF assumption of tactical air control. Would U.S. ground forces be willing to use

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VNAF air support controlled by a VNAF FAC, if the IV CTZ example were expanded to the other CTZs and the agreement which made USAF air support mandatory for U.S. ground forces were rescinded? Further, would they even be willing to have the USAF support controlled by a VNAF FAC under the same conditions?

Three other potential problems existed at the time of the VNAF take over. Although Visual Reconnaissance was primarily a responsibility of the U.S. Army, a significant portion of it was done by the USAF FACs. The USAF in IV CTZ had more than 40 aircraft and about 50 percent of its time was devoted to VR. With its programmed 30 FAC aircraft, the VNAF would not initially have the capability to assume the USAF VR role. It thus appeared the USAF would have to maintain some VR responsibility in IV CTZ, until the VNAF had succeeded in building its operation to the point that they could assume this function.^{27/} In addition, the problem of supply was serious.^{28/} Even when the USAF controlled the entire FAC operation, they were still dependent upon the U.S. Army for support and supply.^{29/} Problems in such areas as transportation, POL, and facilities maintenance were noted in several interviews.^{30/} What the situation would be when the ARVN, which had a much less effective supply system than the U.S. Army, assumed support of the VNAF FACs and its facilities remained a problem. It had the potential of undermining the entire VNAF operation. Finally, would the situation in the Vietnamese armed forces, which made ARVN the controller of the purse strings let the VNAF expand as it needed to? A financial arrangement that would make the VNAF and ARVN separate seemed appropriate.^{31/}

Nevertheless, in October 1969, the outlook was satisfactory for a successful VNAF take-over in IV CTZ, and the problems associated with it appeared to

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be solvable. Success was vital to both VNAF and USAF operations as IV CTZ became a showplace for the concept of Vietnamization of the war.

SPAT Operations in the Delta

One of the unique operations under the control of IV DASC was the night FAC and airstrike operation known as SPAT, the call sign of the night FACs. The overall mission of this operation was stated as "primarily night visual reconnaissance and rocket patrol around the Binh Thuy Air Base-Can Tho area." It was expanded to include night interdiction throughout IV CTZ in the form of controlling airstrikes and identifying targets for gunships and artillery.^{32/}

To carry out this operation, the 22d TASS had 18 O-2 aircraft in October 1969, and a separate cadre of pilots, navigators, and maintenance people. The SPAT aircraft were operated and fragged by the DASC in the same manner as a fighter squadron and were not controlled, as were the normal FACs, by the DASC in terms of supervision and Effectiveness Rating. Each O2 aircraft on the SPAT mission carried two personnel, a pilot and a navigator, or two pilots. The navigator, or second pilot, was responsible for night navigation as well as operation of the Starlight Scope for ground observations. This was a departure from the normal USAF FAC concept of one man per aircraft.^{33/}

The concept of a night FAC operation in the Delta was conceived in 1968, due primarily to the infiltration activity of the enemy into the region and as a security measure for the Binh Thuy-Can Tho area. Originally called ALADDIN, the first two O-2s were received at Binh Thuy in January 1969 and began operation soon after.^{34/} At that time, they were TDY at Binh Thuy from the 19th Tactical Air Support Squadron (TASS). The number of aircraft and number of

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sorties flown continued to increase, however, and the ALADDIN FAC became well-known throughout the Delta.^{35/}

In late June 1969, the night FAC mission was made a separate special operations flight of the 22d TASS, and a completely separate command facility, with its own radios, was started at Binh Thuy. Coincidentally with this, the call sign of the night FACs was changed from ALADDIN to SPAT.^{36/} In effect, the SPAT operation became a TACP located at Binh Thuy. In October 1969, the command facility was complete in bunkered trailers and operating very smoothly.^{37/} (APP. IX.)

Although originally quite limited in scope, the SPAT operation had grown to the extent that in September 1969, a new system of targeting was introduced by IV DASC for night operations. Rather than providing "open immediate" cleared target boxes nightly, 10 to 15 selected VR areas were directed, based on ARVN sector and division requests. The pilots checked in with the sector Tactical Operations Center upon arrival and were then directed to areas of concern. When a significant sighting was made, it was reported to the sector and a recommendation was made for an airstrike, artillery fire, or other appropriate action.^{38/}

In addition, the proposal was made in September 1969 that VNAF observers ride with the SPAT FACs to gain experience in night operations. While it was not anticipated that the VNAF would assume the night role in the foreseeable future, it was believed this experience would be helpful and provide a "foot in the door" toward VNAF night operations. As of October 1969, the VNAF had not approved this suggestion,^{39/} and they appeared rather reluctant to eventually

[REDACTED]

assume this function. ^{40/}

Four problems plagued the SPAT operation from its inception: maintenance and parts, a shortage of flareships, a shortage of Starlight Scopes, and political clearances. The maintenance situation probably stemmed from the fact that the other CTZs had a number of O-2s while there were only those of the SPAT operation in IV CTZ. As a result, it appeared that this group had a low priority for O-2 parts, and bench stock was difficult to maintain. Flights were often made to other bases to procure parts to keep the aircraft operational. Personnel were also very critical, and any effort to increase the size of the operation had to await more maintenance capability. ^{41/} In addition, beddown space for the O-2s was critical and expansion depended on an increase in facilities available at Binh Thuy. ^{42/}

The shortage of Starlight Scopes also threatened the mission. In October 1969, there were only four available and they were checked out from other organizations on a temporary basis. ^{43/}

The situation involved in obtaining political clearances was basically the same as for day missions. An added factor was the understandable reluctance of commanders to disclose, over the air, the location of friendly ambush teams. As with day operations, many strikes could not be made on suspected targets because of a lack of clearance. ^{44/}

The problem of illuminating targets for airstrikes was two-fold. First, there was a basic lack of flareships and second, the soft light that was beamed from SHADOW AC-119 fixed lights was generally unsatisfactory for night fighter

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strikes. Several reasons were cited for the latter: (1) the SHADOW aircraft was unable many times to keep a circle of light on the target; (2) the FAC had a difficult time seeing ground features in the light which often blinded him; (3) similar appearing targets could result in a Short Round, if the SHADOW let his light slip off the original target and then another, similar appearing target was picked up; (4) the soft light almost eliminated depth perception for the fighters. It was classed as unsafe in uneven terrain and many fighter pilots refused to make a run with that type of light; (5) the FAC became an easy ground target because he had to remain in the circle of light to see the ground area; and (6) the light could not be used in haze as marking rockets became difficult to see.^{45/}

Due to this situation, the use of the flare capability of the gunships in IV CTZ was increased. In addition, the fighters operating in IV CTZ began to carry two flares on the lead aircraft in case other light was not available. Finally, a unique and very promising innovation was conceived at the 22d TASS. One O-2 was fragged with 16 flares, 8 under each wing, rather than the customary rocket or rocket/flare combination. Called SPAT LITE, this O-2 began standing ground alert on 13 October 1969, to be scrambled by the DASC in the event no other flareship were available to light the target area.^{46/} After a lighting mission, the aircraft would return to Binh Thuy, have its expended flares replaced, and be ready to go out again. With the normal consumption of 6 flares per fighter flight, it appeared the O-2 could realistically light 2 sets of fighters before having to return for more flares. The aircraft was used an average of at least once each night through October 1969 and was judged to be

[REDACTED]

very effective.^{47/}

With the evolution of the night FAC operation in IV CTZ and the growing capability to provide light for suspected targets, the night was becoming an increasingly unfriendly ally to the enemy in the Delta.

Command and Control

The problem of command and control relationships between IV DASC and the 22d TASS remained an important issue in 1969 as it had been on earlier occasions.^{48/} The crux of the problem was found in two 7AF Regulations, 55-35 and 23-39. Seventh Air Force Regulation 55-35 stated the Deputy Director of the DASC would:^{49/}

"(1) Maintain operational control over assigned and attached Air Control Parties and FAC aircraft within their respective areas of responsibility. (2) In coordination with the respective TASS, designate operating locations for Tactical Air Control Parties and FAC aircraft within their respective areas of responsibility....(3) Be responsible for the activities of all USAF personnel under his direct supervision/assigned to duty with the DASC."

The regulation further pointed out that "operational control by DASC involves establishing operational requirements and monitoring the execution of daily operation."^{50/}

The responsibilities of the Tactical Air Support Squadron were set out in 7AF Regulation 23-39. Among them were: "d. Supervise training, indoctrination, and standardization of assigned and attached personnel. e. Supervise flying and safety at operating locations within assigned geographic area of responsibility." These responsibilities were prefaced with the statement that "the

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USAF Directors of Tactical Air Control Centers exercise operational control through Direct Air Support Centers and Tactical Air Control Parties in controlling tactical air operations."^{51/}

The point of conflict was operational versus command control of FACs and it, in effect, left the FAC working for two masters, the DASC, through the ALO, and the TASS to which he was assigned. The conflict in the regulations was obvious and became serious in 1969 in matters concerning: who controlled leaves, special duties, working hours, and responsibility for operational accidents. The situation was well-phrased in the 22d TASS History.^{52/}

"The TASS in fulfilling its function runs head on into the Corps ALO who naturally supposes that almost anything impinging on operations is his province....The ALO levies guard duty for aircraft, building of revetments, housing conditions, jeep maintenance...virtually everything the TASS presumes is within the scope of its support responsibilities."

As the Monthly Activity Report for July 1969 of the 22d TASS noted: "Establishing operational requirements and monitoring the execution of daily operations means one thing to the DASC, another to the TASS."^{53/}

Several proposals were made to resolve this conflict. One was that the Officer Effectiveness Report (OER) function be moved from the TACC/DASC line and put in the TASS command line through the TASS commander. This was coupled with the suggestion that the Corps ALO be placed in the advisory function that the ALO was originally intended to fill.^{54/}

Another proposal was that the FACs should be treated just as fighter

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squadrons were. That is, left under the control of their own squadron commander and simply fragged by the DASC.^{55/} It was also suggested that a single commander^{56/} for all operations (TASS, DASC, and TACP) for each geographical area be created. None of these suggestions was approved and despite the publication of a new 7AFR 23-39 in July and a clarification of the OER situation in an August 1969 Supplement to AFM 36-10, the confusion still existed.^{57/} At the level of IV DASC and the 22d TASS, it had been solved by a gentlemen's agreement between the respective commanders.^{58/} The weakness in such a solution was that commanders changed and the new ones might not be able to establish the same working relationship as their predecessors. It should be noted that this system has been effective considering the complexity of operations of the TACS and the massive support provided by the 504th Tactical Air Support Group (TASG).^{59/}

Immediate Air Request Response Time

One of the objectives of this report was to obtain statistical data on response times to requests for immediate air support in IV DASC. This information was stored in a computer data base at Headquarters, Seventh Air Force, but on close analysis it proved to be inaccurate and misleading. Because the computer information had been obtained from DASC Mission Data Logs, it provided little additional meaningful data.^{60/}

The Director of Operations at IV DASC identified one of the sources of misleading data as the "open immediate" request for air support. This was a request given to the DASC and logged as an immediate, but which had a specified time over target (TOT). These requests were often called in to the DASC early in the day for a TOT in the afternoon. Since the request was called to the

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DASC on the day of the strike, it was not treated as a preplanned mission.^{61/}

A sample of DASC Mission Data Logs for 8 December 1967 illustrates this situation. At 0945 on that date, IV DASC received 18 requests for airstrikes in support of Operation DAN CHI. These were all logged as immediate requests. Seventeen of these were filled, 11 by scrambles and 6 by divers. The distortion to the response time data base became evident when the scramble/divert times for these requests were tabulated. The 11 scrambles logged times of 1015, 1015, 1105, 1125, 1500, 1535, 1540, 1645, 1645, 1655, and 1705. Those aircraft diverted did so at 1005, 1120, 1155, 1335, 1515, and 1535. Since these were all logged as immediates, the delay in response for these requests ranged from 11 minutes to 7 hours and 11 minutes. Needless to say, these could hardly have been requests for immediate air support but for statistical purposes, they were treated as such. Thus the 7-hour, 11-minute time span from request to response went as an Air Force response delay.^{62/} Other similar cases were also apparent.

As a result of this situation, the Director of IV DASC initiated a study in March 1969 in an effort to obtain accurate data on response times. The results of this study are presented in Figure 8.^{63/} These raw versus refined data illustrate the distortion in response time that resulted from the "open immediate" request practice. In addition, this study revealed the "open immediate" request was producing as many as three target changes before the strike actually occurred. As a result of this study, the DASC Director discontinued the "open immediate" request and accepted requests for airstrikes no more than one hour prior to the specified TOT, unless the strike was a preplanned mission.^{64/}

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A recent CHECO Report has concluded, after a thorough analysis of statistics on response times theater-wide, that the generally accepted figures of 20 minutes from divert to TOT and 40 minutes for a scramble were fairly valid.^{65/} In IV DASC's study, it must be noted that the average for a divert was 32.5 minutes and for a scramble 58.6 minutes. The only reasonable explanation for this was distance, since all the USAF portion of IV CTZ air support came from bases in II or III CTZ (Bien Hoa, Phang Rang, Cam Ranh Bay). The average scramble ground time for RVN in the period of 1-21 January 1969 was 15.29 minutes.^{66/} When this was applied to the scramble time figures from the IV DASC study, it produced an average flying time from base to target of about 35 minutes, given the 7.6 minutes from request to start of scramble.^{67/} These figures indicated that the response time in IV CTZ was somewhat slower than in the theatre overall, but this was primarily due to distance from the fighter bases to the many IV CTZ targets. In October 1969, an A-37 flight from Bien Hoa to a target in the southern portion of IV CTZ and back was planned as about 1 hour and 30 minutes, considerably longer than the average mission length for that organization.^{68/}

The study of response times undertaken by IV DASC was not the only one on this subject. In the summer of 1969, the TACC was engaged in such a study, and Headquarters USAF had a team at Tan Son Nhut in September and October 1969 compiling information on certain aspects of the subject.

Political Clearances

An integral part of any meaningful consideration of response time must include the subject of political clearance of targets. This was especially valid

**IV DASC SPECIAL STUDY
OF IMMEDIATE AIR REQUESTS
1 - 31 MARCH 1969**

<u>Scrambles Average Time</u>	<u>Unrefined Average</u>	<u>Refined</u>
Request to Scramble	12.5 Min	7.6 Min.
Request to Time on Target	65.6 Min	58.6 Min.
<u>Diverts Average Time</u>		
Request to Divert	13.7 Min.	8.4 Min.
Request to Time on Target	39.3 Min.	32.5 Min.
<u>Combined Average Time</u>		
Request to Scramble or Divert	13.2 Min.	8.1 Min.
Request to Time on Target	50.1 Min.	44.1 Min.

FIGURE 8

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in IV CTZ, since the dense population of the area made it more vulnerable to friendly or noncombatant casualties than some other CTZs. Political clearance time was not considered in response time by the Air Force. Response time was interpreted as the time from either the DASC's request to TACC to scramble, ^{69/} or the DASC's order to divert to the time the fighters were over the target. Since the political clearance had to be received prior to the scramble or divert order, this time was not included in response time. ^{70/} It was, however, a delay to the man on the ground who was awaiting air support.

The political clearance had long been cited as a problem in the Delta area, ^{71/} but it had also been a firm requirement in that region. ^{72/} The problem varied from area to area in IV CTZ. For example, one DASC Duty Officer noted that on some occasions the Province Chief in certain areas had not been available to clear a strike and had not authorized another individual to act in his place. On other occasions, there were known areas of enemy concentration for which clearance was not granted. ^{73/} Suggestions were made that much of the unwillingness to give a clearance, or unavailability on the part of the Province Chief, was intentional due to dishonesty, agreements with the enemy, and similar causes. ^{74/} While this was entirely possible, other important considerations had to be weighed.

It was quite possible the Province Chief was not familiar enough with his province, which could contain as many as 250,000 people, to determine the situation, given the relatively poor communications net available. It was also possible that either friendly forces or noncombatants were too close to a suspected enemy position for it to be attacked. It was conceivable that no

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one knew if the suspected target were friendly or enemy. One tactic of the enemy in the Delta was to move in such proximity to either friendly or civilian concentrations that an airstrike or artillery fire was impossible.^{75/} One needed only to fly over the Delta region to appreciate the complexity of this problem.

Several procedures were instituted to minimize the delay attributed to the political clearance. The "open immediate" clearance was one procedure whereby a particular area was politically cleared for a given period of time. This generally occurred during an operation in which airstrikes were anticipated. (This should not be confused with the open immediate response time discussed previously.) Another method was the use of as many preplanned strikes as seemed reasonable. These all had political clearance during the planning process. The SHADOW box method applied to the use of gunships (AC-119 SHADOW, USAF AC-47 SPOOKY, and VNAF AC-47 FIRE DRAGON) and was, in reality, a precleared free fire zone that was valid for varying periods of time. Finally, the curfew was widely used in the Delta, especially on rivers, canals, and highways to keep friendlies and civilians out of an area, so that any movement could be assumed to be enemy.^{76/}

Despite these considerations, the problem of the political clearance as it affected immediate airstrikes in IV CTZ remained and had to be considered when the total response time for close air support was considered. The procedure was simplified as much as possible, however, IV DASC was still experiencing delays of up to one hour because of this problem in 1969.^{77/}

CHAPTER IV

SUMMARY

Of the functions of IV DASC, none was more important than the process by which the DASC and the FAC operations were integrated with the VNAF and finally turned over to them for complete control. This was the more remarkable since nearly 50 percent of the airstrikes flown in IV CTZ were by USAF aircraft controlled by VNAF FACs. This was a very valid lesson in the concept of Vietnamization of the war. Beyond that, it graphically demonstrated that tactical air support could be handled efficiently by the VNAF.

The secret to the success of the entire process was attitude. Coupled with this was a willingness on the part of USAF personnel to be patient and tolerant in instructing their counterparts who were dealing in a foreign language, and on the part of the VNAF as well, who were ready to assume the lead. Problems arose, and will arise in the future, with the operation, but the important thing to remember was that the step was taken.

The question naturally arose as to whether the experience in Vietnamization in IV CTZ was valid for use in other CTZs. In considering this question, the uniqueness of IV CTZ had to be kept in mind. It was the area of most VNAF tactical airpower and the majority of the ground forces were ARVN. The U.S. had the smallest commitment in terms of numbers in IV CTZ. This meant that a majority of the airstrikes were for ARVN forces, whether directed by USAF or VNAF FACs. This was not the case in other CTZs, where the United States had large commitments and where most of the tactical air had been USAF and directed by USAF FACs. The question of the use of VNAF air or FACs in support of U.S.

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ground forces has already been posed.

The lesson was valid, however, if the current trend of Vietnamization of the war continued. The other DASCs would have to turn over their operation to the VNAF to a great degree. The increasing presence of ARVN troops in all the CTZs meant that the use of VNAF FACs to control both USAF and VNAF airstrikes must become a more universal concept. Thus, the process by which the transition took place in IV CTZ could be critical to future transition operations and might well warrant further study as time passed.

The night SPAT operations were also a testing bed for several concepts of possible wider expansion throughout the war zone. The question of the ability of fighters to carry their own flares was still being evaluated at this writing. The use of the O-2 as a flareship held many possibilities for future application. The actual effectiveness of night interdiction also posed problems in evaluation. For example, it was difficult to determine the effect of a night fighter attack or get accurate BDA in the Delta environment.

The problems connected with command and control were not unique to IV CTZ. Each DASC and TASS in Vietnam had the same problem of attempting to draw a clear line between the authority of the two. While the problem was worked out part of the time by some DASCs and TASSs, it still remained a grey area that caused concern and frustration at all levels, from the DASC and TASS to the ALO/FAC.

The issue of response times did not seem to pose as big a problem in IV CTZ as it did in some other areas. The times were regarded as satisfactory

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and there was no real concern expressed over delays in getting air support. Since no USAF tactical air was located in IV CTZ, the overall response times were slightly greater than the average for the theatre, but no problems in the CTZ were laid at the doorstep of slow response times.

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9. (TS/NF) CHECO Rprt, Hq PACAF, DOTECH, "The War in Vietnam, 1965," 25 Jan 67, Fig. 11
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14. (S) Ibid, pg 2;
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17. (S) "Air Operations in the Delta," pp 12-24.
18. Ibid, pp 29-30.
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28. (C) Briefing Chart, IV DASC, 10 Jul 69.
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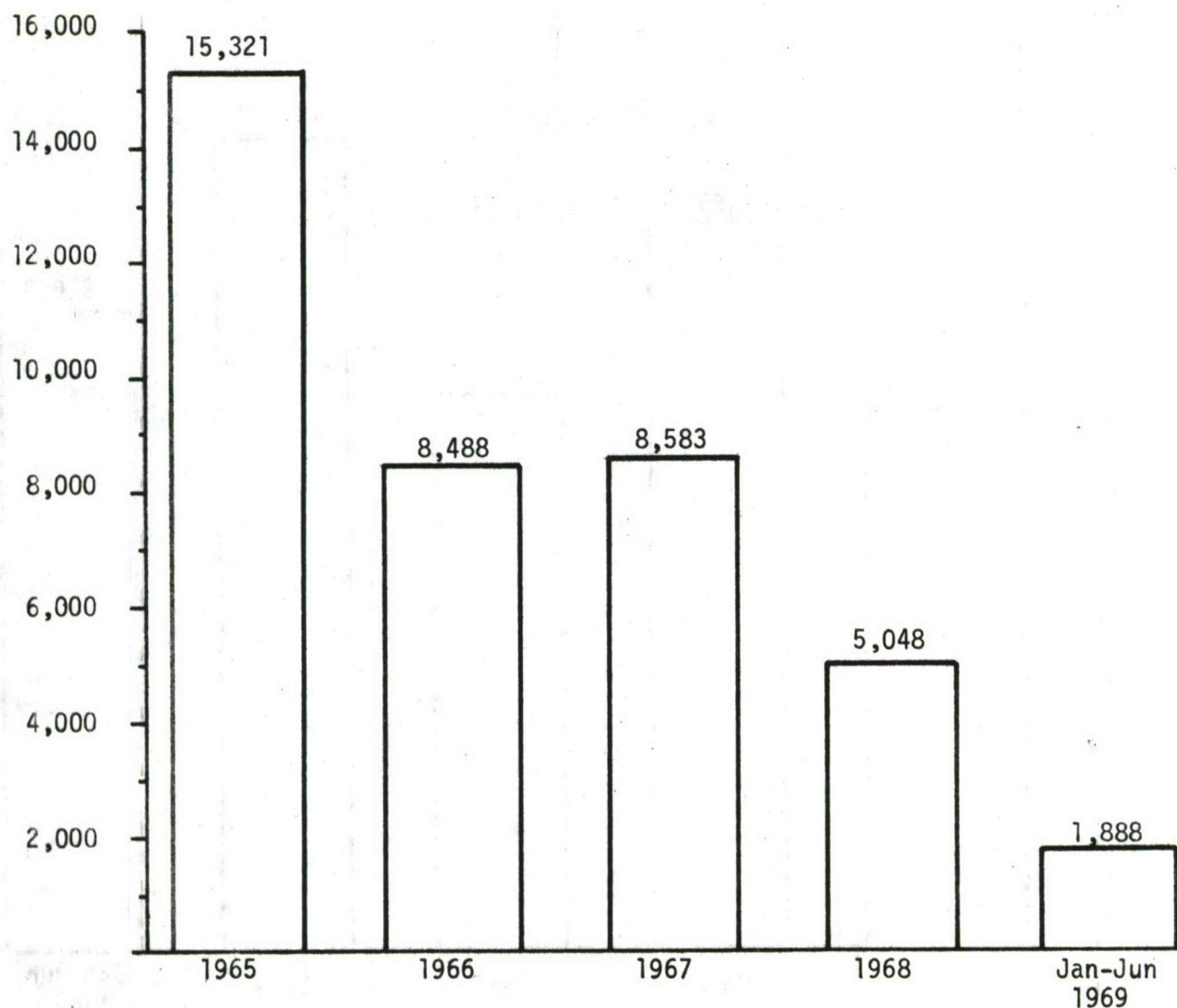
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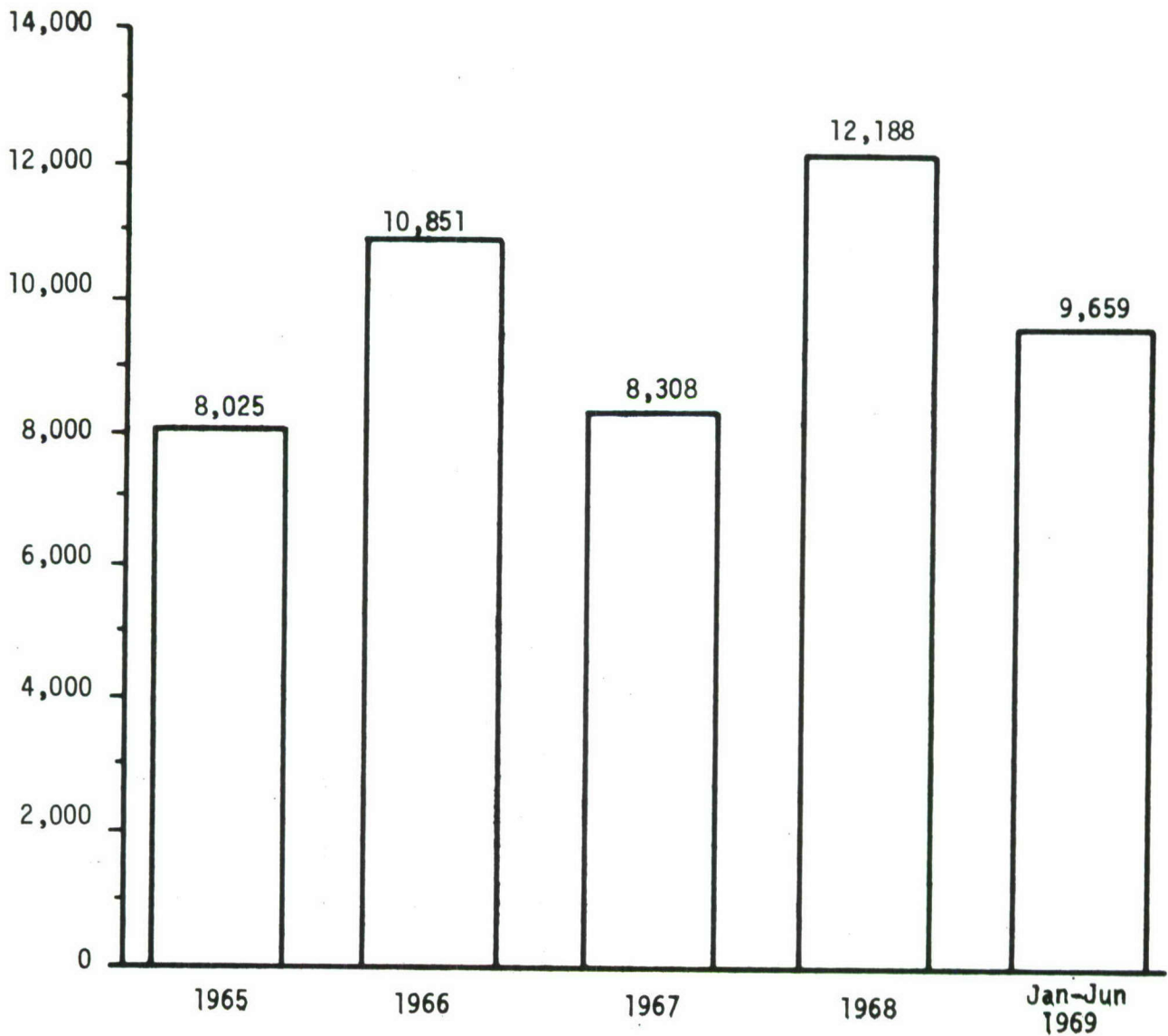
APPENDIX I

**TOTAL A-1 SORTIES FLOWN IN IV CTZ
1965 - JUN 1969**



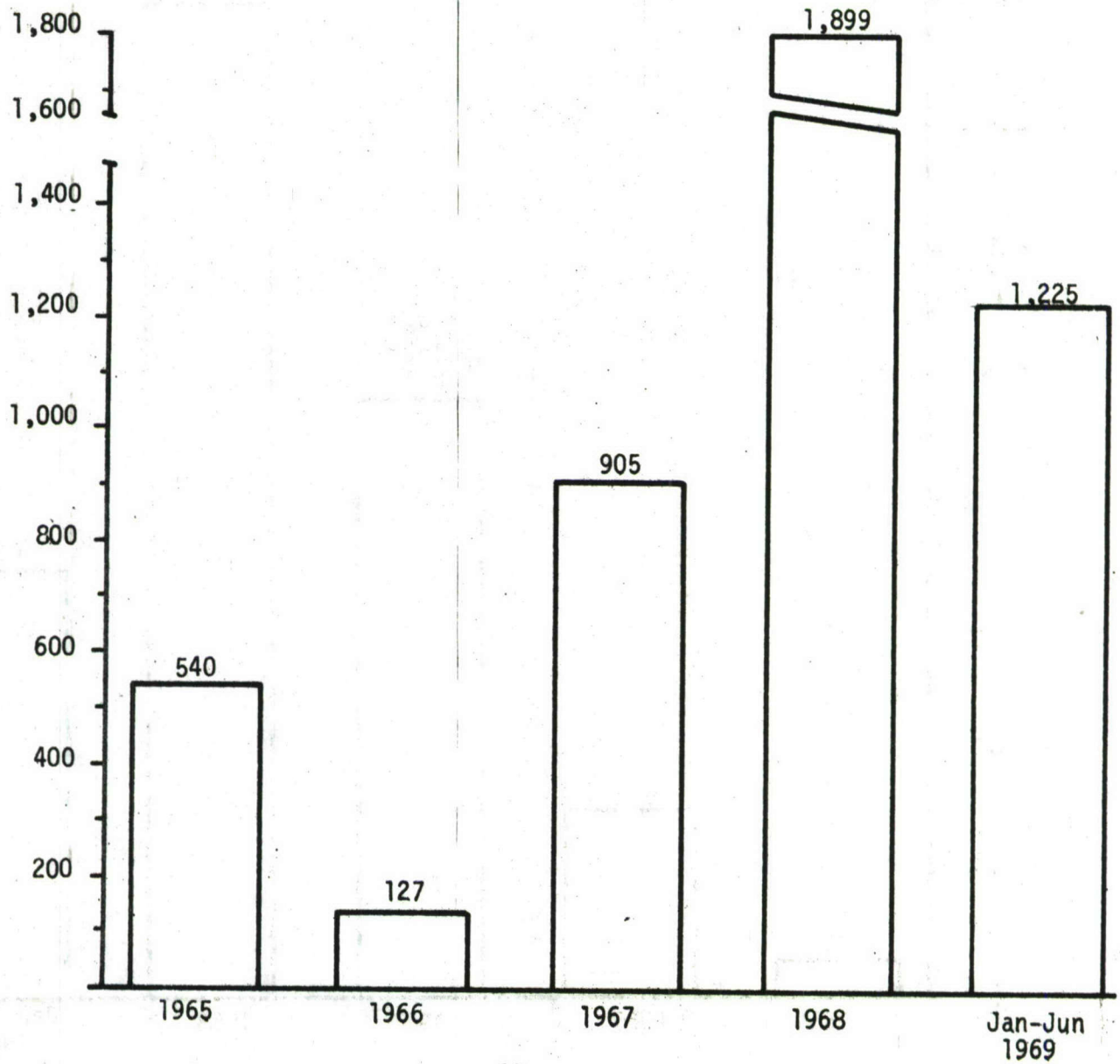
APPENDIX II

TOTAL F-100 SORTIES FLOWN IN IV CTZ 1965 - JUN 1969



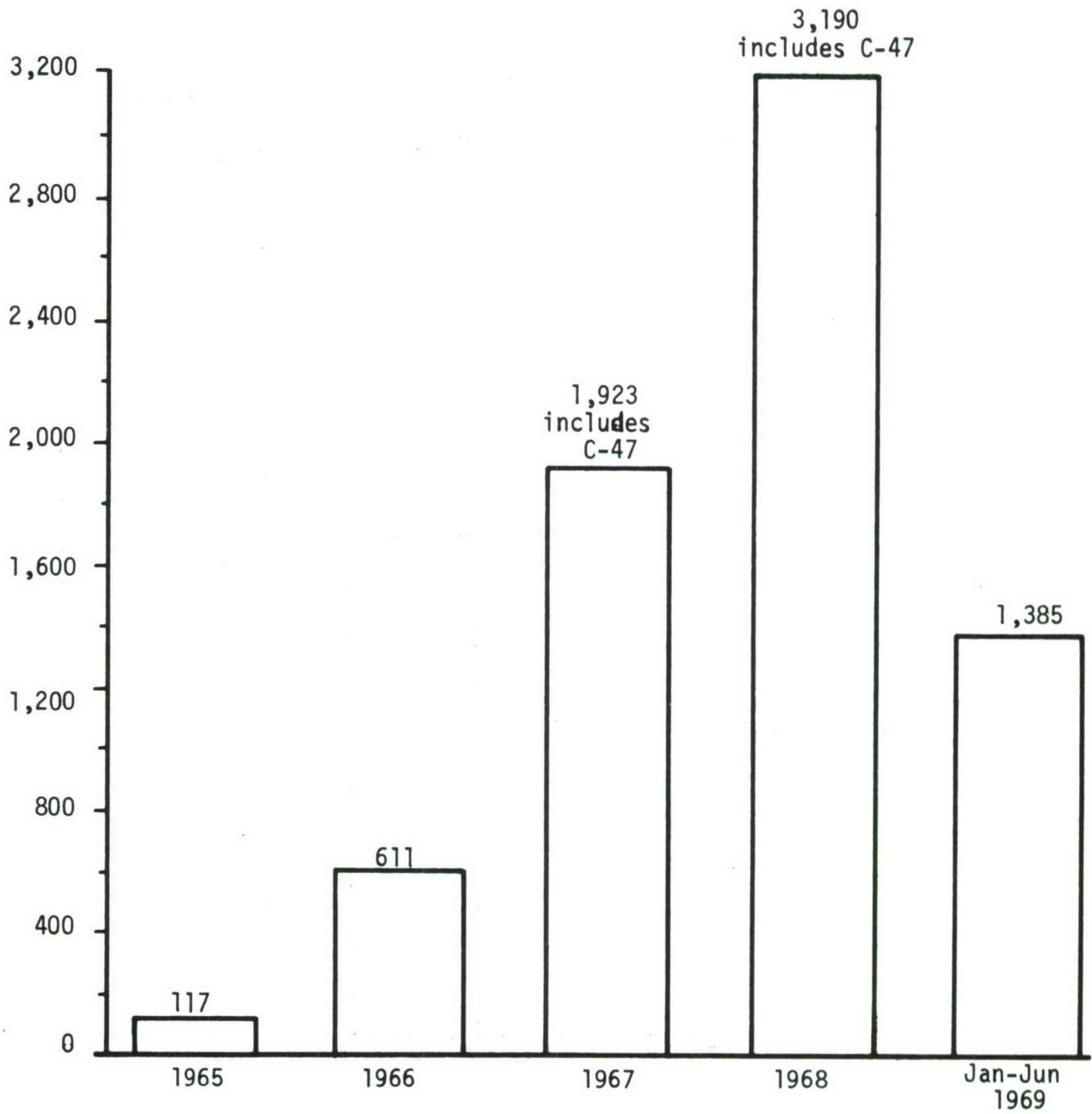
APPENDIX III

TOTAL B-57 SORTIES FLOWN IN IV CTZ
1965 - JUN 1969



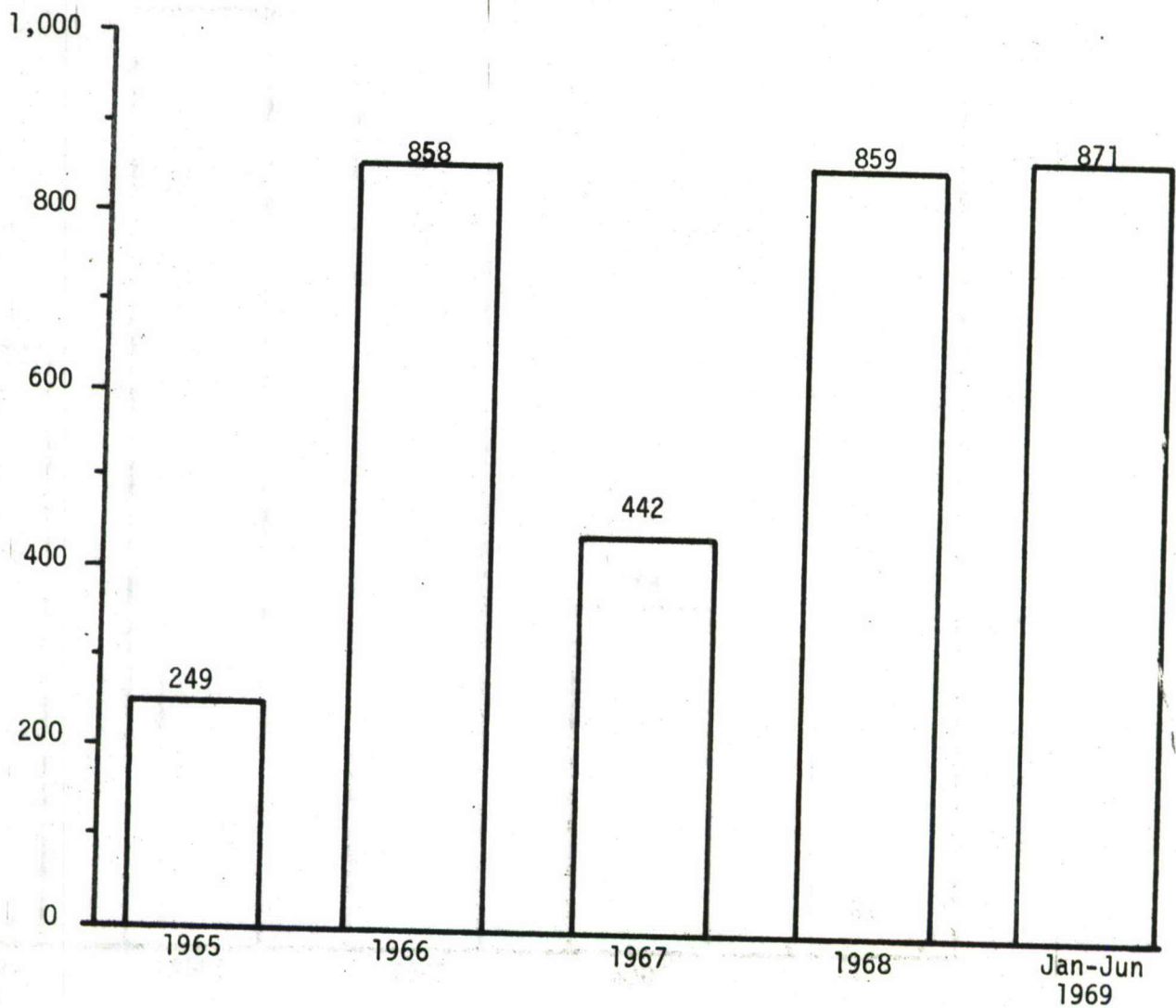
APPENDIX IV

**TOTAL AC-47 SORTIES FLOWN IN IV CTZ
1965 - JUN 1969**



APPENDIX V

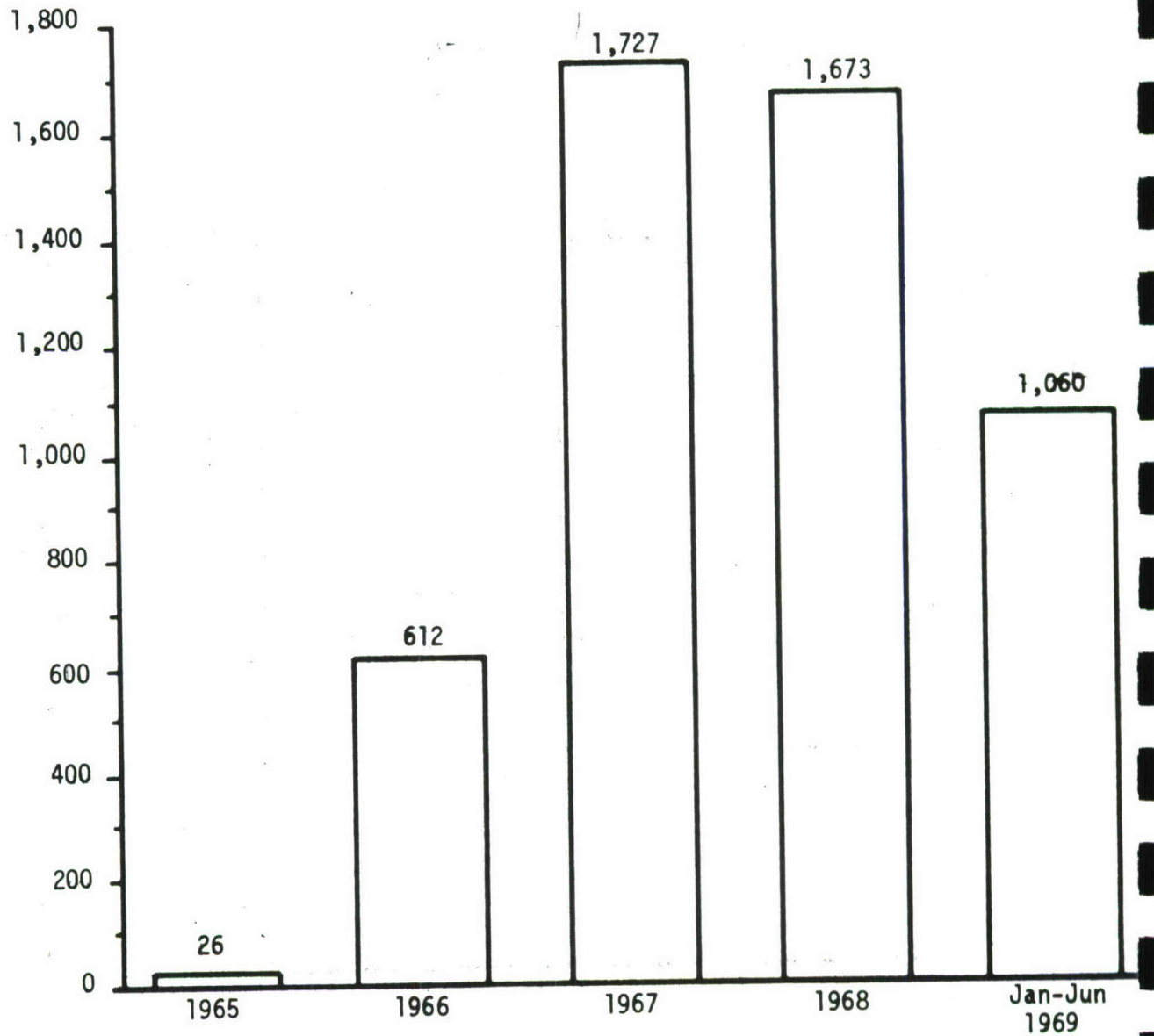
TOTAL F-5 SORTIES FLOWN IN IV CTZ
1965 - JUN 1969



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APPENDIX VI

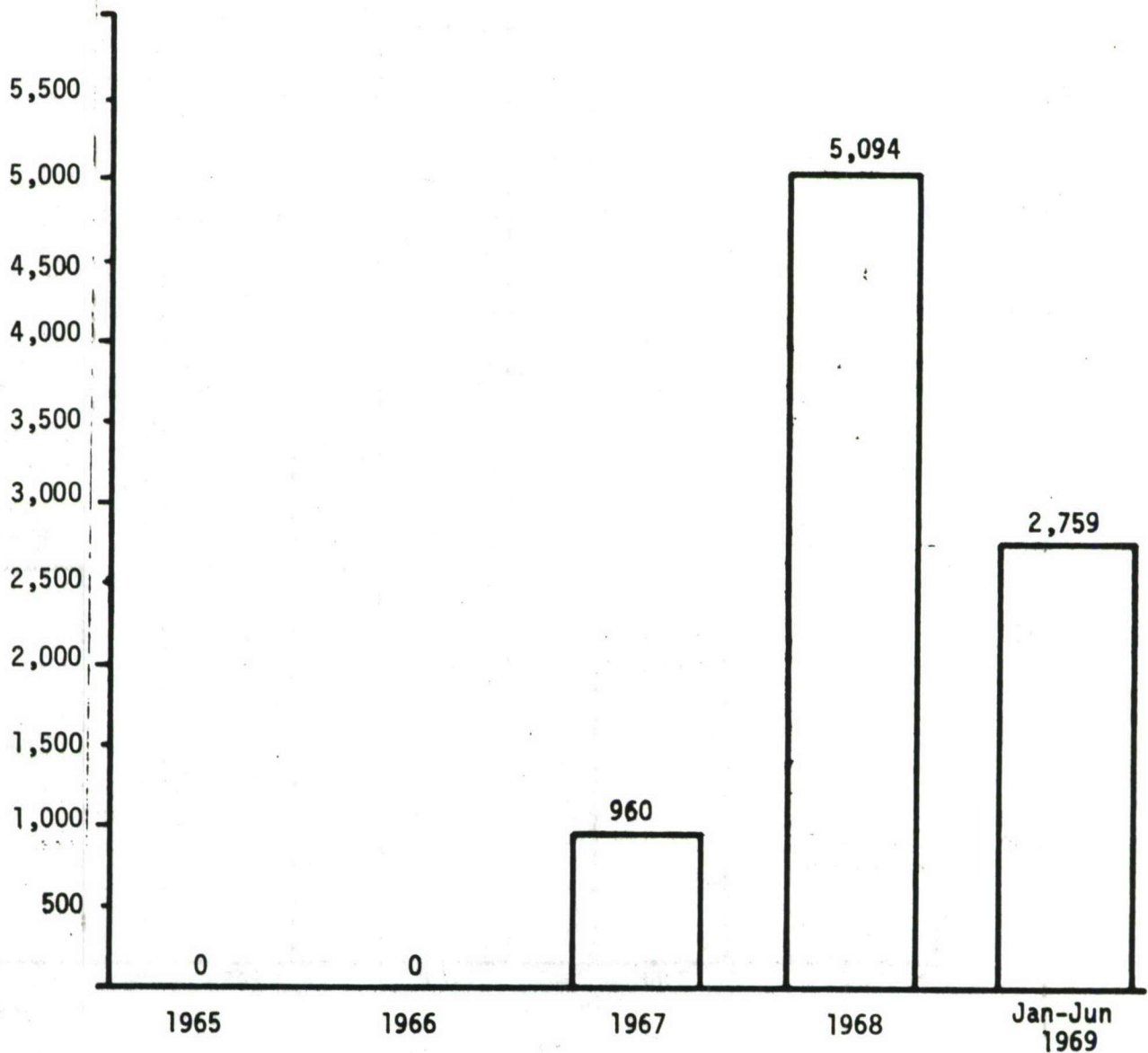
TOTAL F-4 SORTIES FLOWN IN IV CTZ
1965 - JUN 1969



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APPENDIX VII

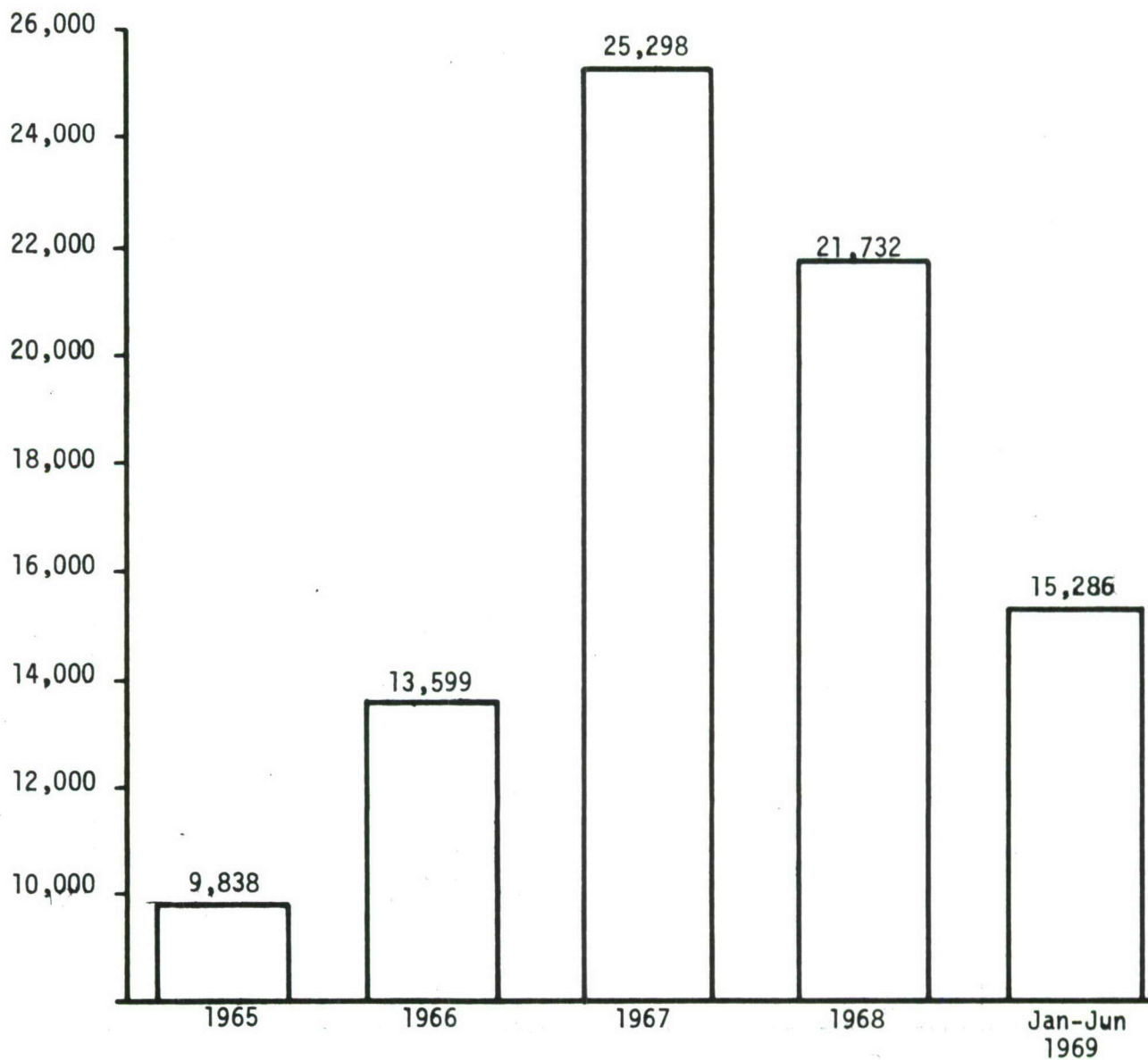
**TOTAL A-37 SORTIES FLOWN IN IV CTZ
1965 - JUN 1969**



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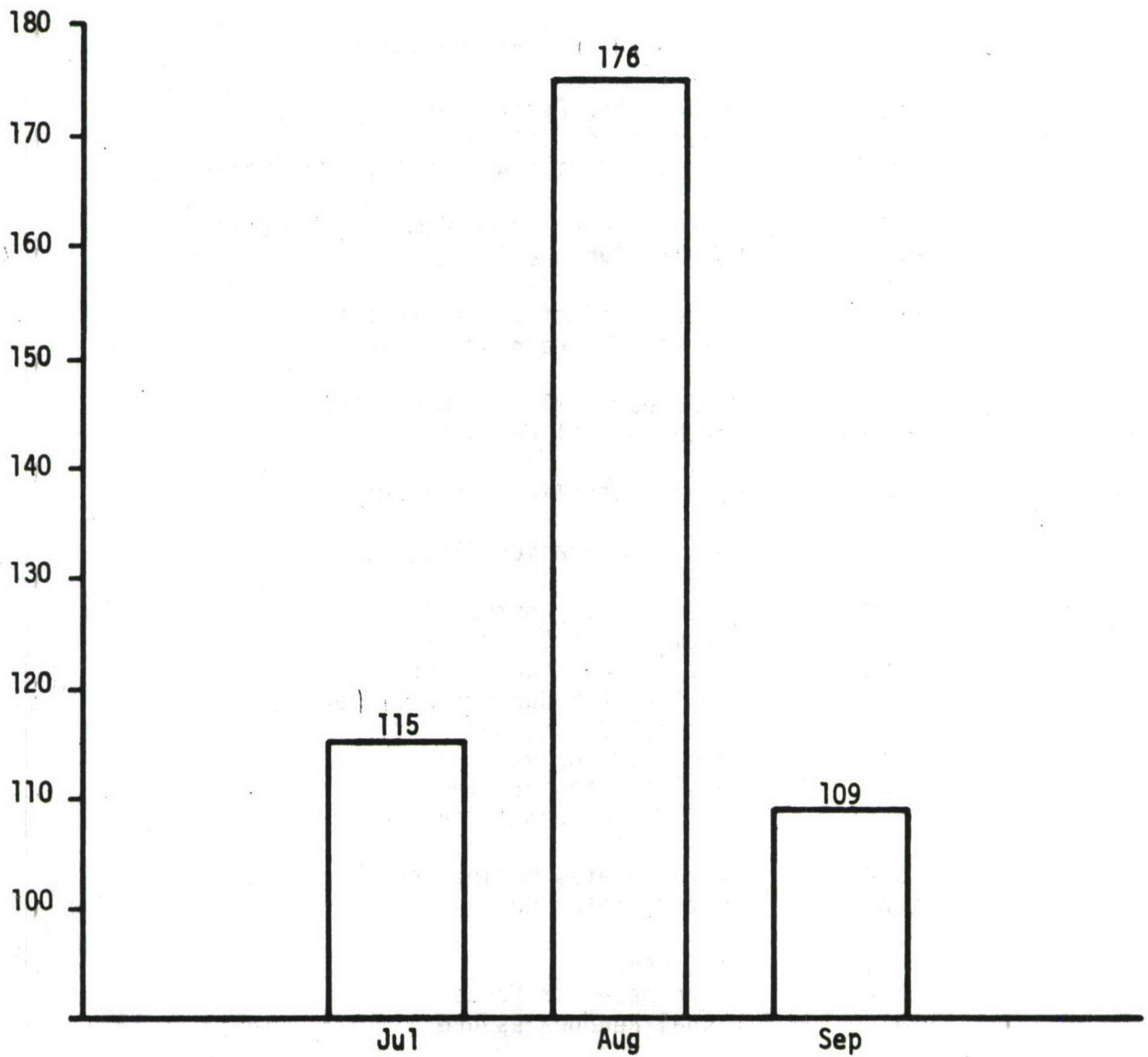
APPENDIX VIII

TOTAL O-1 SORTIES FLOWN IN IV CTZ
1965 - JUN 1969



APPENDIX IX

**SPAT SORTIES
JUL - SEP 1969**



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GLOSSARY

ALO	Air Liaison Officer
ARVN	Army of Republic of Vietnam
BDA	Bomb Damage Assessment
CRP	Control and Reporting Post
CTZ	Corps Tactical Zone
DARN	Direct Air Request Net
DASC	Direct Air Support Center
DO	Duty Officer
ETA	Estimated Time of Arrival
FAC	Forward Air Controller
FFV	Field Force Vietnam
FWMAF	Free World Military Assistance Forces
MACV	Military Assistance Command, Vietnam
MRF	Mobile Riverine Force
OER	Officer Effectiveness Report
OJT	On-the-Job Training
POL	Petroleum, Oil, and Lubricants
Psywar	Psychological Warfare
RAAF	Royal Australian Air Force
SOS	Special Operations Squadron
TACC	Tactical Air Control Center
TACP	Tactical Air Control Party
TASG	Tactical Air Support Group
TASS	Tactical Air Support Squadron
TOC	Tactical Operations Center
TOT	Time Over Target
TFW	Tactical Fighter Wing
TRW	Tactical Reconnaissance Wing
USMC	United States Marine Corps
USN	United States Navy
VC	Viet Cong
VNAF	Vietnamese Air Force
VR	Visual Reconnaissance
WAIS	Weekly Air Intelligence Summary