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PROJECT CHECO SOUTHEAST ASIA REPORT

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PROJECT CHECO
Contemporary Historical Evaluation of Combat Operations
REPORT

Tactical Recon Photography Request/Distribution

15 February 1969

HQ PACAF

Directorate, Tactical Evaluation
CHECO Division

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Prepared by:

C. William Thorndale

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.

15. SUBJECT TERMS

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS PACIFIC AIR FORCES
APO SAN FRANCISCO 96553

REPLY TO ATTN OF: DOTEC

19 August 1969

SUBJECT: Changes to Project CHECO Report, "Tactical Recon Photography Request/ Distribution"

TO: All Holders of Subject Report

1. It is requested that all holders of subject report (S/AFEO), 15 February 1969, DOTEC-69-29, substitute attached pages 55-58a for corresponding pages in published report.

2. Request the following changes be made in pen and ink:

Page	Line	
16	5	Delete second sentence and first word of third sentence.
32	11	Delete "16th PPIF"; insert "460th Recce Tech".
32	12	Delete "460th Recce Tech"; insert "16th PPIF".
39	23	Delete through line 24.
40	1	Delete through line 5.
42	1	Delete Footnote "45"; insert "35" and renumber remaining footnotes consecutively through "58".

FOR THE COMMANDER IN CHIEF

Warren H. Peterson

WARREN H. PETERSON, Colonel, USAF
Chief, CHECO Division
Directorate, Tactical Evaluation
DCS/Operations

1 Atch
Revised Pages 55-58a

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 Evaluation of Combat Operations, was established to meet this Air Staff requirement. Managed by Hq PACAF, with elements at Hq 7AF and 7/13AF, Project CHECO provides a scholarly, "on-going" historical evaluation and documentation of USAF policies, concepts, and doctrine in Southeast Asia combat operations. This CHECO report is part of the overall documentation and evaluation 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 SEA.

Milton B. Adams

MILTON B. ADAMS, Major General, USAF
Chief of Staff

[redacted]

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HEADQUARTERS PACIFIC AIR FORCES
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FOR THE COMMANDER IN CHIEF

Warren H. Peterson

WARREN H. PETERSON, Colonel, USAF
Chief, CHECO Division
Directorate, Tactical Evaluation
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(d) DORQ. 1
(e) DIO 1

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2. DP. 1

(b) 12AF

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2. DP. 1
3. DI. 1

(c) 19AF

1. DO. 1
2. DP. 1
3. DA-C. . . . 1

(d) USAFSOF

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2. DI 1

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(b) 832AD(DO). 2
(c) 833AD(DDO) 2
(d) 835AD(DO). 2
(e) 836AD(DO). 2
(f) 838AD

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2. DOCP 1

(g) 839AD(DO). 2
(h) 840AD. 2

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(c) 15TFW(DO). 1
(d) 23TFW(DOI) 1
(e) 27TFW(DOP) 1
(f) 33TFW(DOI) 1
(g) 49TFW(DCOI). 1
(h) 64TFW. 1
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(j) 75TRW(DO). 1
(k) 78FW(WGODC). 1
(l) 82CSPW(DOCH) 1
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1. DID 2

(c) USAFTALC

1. DCRL. 2

(d) USAFTFWC

1. CRCD. 2

(e) USAFSOC(DO) 2
(f) USAFAGOS(DAB-C) . . 2

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(b) DPLF. 1
(c) DM. 1
(d) DI. 1

(2) AIR FORCES

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(b) 8AF(C). 1
(c) 15AF. 1

(3) AIR DIVISIONS

(a) 3AD(DO) 3

c. MAC

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(b) MAOCO. 1
(c) MAFOI. 1
(d) MACOA. 1

(2) AIR FORCES

(a) 21AF

1. ODC. . . . 1
2. OCXI . . . 1

(b) 22AF

1. ODC. . . . 1
2. OCXI . . . 1

(3) AIR DIVISIONS

(a) 322AD. 1

(4) WINGS

(a) 375AAWG

1. ODC. . . . 1

(b) 89MAWG

1. ODC. . . . 1

(c) 60MAWG

1. ODC. . . . 1
2. OXI. . . . 1

(d) 61MAWG

1. ODC. . . . 1
2. OIN. . . . 1

(e) 62MAWG

1. OCXP 1
2. OOPT 1

(f) 63MAWG

1. O. 1
2. OCXCI. 1

(g) 435MAWG

1. ODC. 1
2. OTI. 1

(h) 436MAWG

1. O. 1
2. OCXC 1

(i) 437MAWG

1. ODC. 1
2. OCXI 1

(j) 438MAWG

1. ODC. 1
2. OCXC 1

(k) 445MAWG

1. OC. 1
2. WDO-PLI . . . 1

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1. ARXLR 1

(c) ACGS

1. AGOV. 1

(d) AAVS

1. AVODOD 1

d. ADC

(1) HEADQUARTERS

(a) ADODC. 1
(b) ADOOP. 1
(c) ADOTT. 1
(d) ADLCC. 1

(2) AIR FORCES

(a) 1AF

1. DO 1
2. DP 1

(b) 4AF

1. DO 1
2. DP 1

(c) 10AF

1. DO 1
2. PDP-P. 1

(d) 14Aerosp Force

1. 14ODC-I. . . . 2

(e) AF Iceland 2

(3) AIR DIVISIONS

(a) 25AD 2
(b) 26AD(OIN). 2
(c) 27AD 2
(d) 28AD(OIN). 2
(e) 29AD(ODC). 2
(f) 31AD 2
(g) 32AD(ODC-A). . . . 2
(h) 33AD(OIN). 2
(i) 34AD(OIN). 2
(j) 35AD(CCR). 2
(k) 36AD(OIN). 2
(l) 37AD(ODC). 2

e. ATC

(1) HEADQUARTERS

(a) ATXDC. 1

f. AFLC

(1) HEADQUARTERS

(a) MCFH 1
(b) MCGH 1
(c) MCOO 1

g. AFSC

(1) HEADQUARTERS

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(g) ADTC/ADP . . . 2
(h) RADC/EMOEL . . 2

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i. USAFSS

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(b) CHO. 5

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(b) 6940 Scty Wg

1. OOD. . . . 1

j. AAC

(1) HEADQUARTERS

(a) ALDOC-A 2

k. USAFSO

(1) COH 1
(2) OOP 1

l. PACAF

(1) HEADQUARTERS

(a) DP. 1
(b) DI. 1
(c) DO. 1
(d) DPL 4
(e) CSH 1
(f) DOTEC 6
(g) DE. 1
(h) DM. 1

(2) AIR FORCES

(a) 5AF

1. DOPP. . . . 1
2. DP. 1

(b) 7AF

1. DO. 1
2. DIXA. . . . 1
3. DPL 1
4. TACC. . . . 1
5. DOAC. . . . 2

(c) 13AF

1. DOO 1
2. DXIH. . . . 1
3. DPL 1

(d) 7AF/13AF

1. CHECO . . . 3

(3) AIR DIVISIONS

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(b) 314AD(DOP) . . . 2
(c) 327AD 2
(d) 834AD. 2

(4) WINGS

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(b) 8TFW(DCOA) . . . 1
(c) 12TFW(DCOI). . . 1
(d) 14SOW(DCO) . . . 1
(e) 31TFW(DCOA). . . 1
(f) 35TFW. 1
(g) 37TFW(DCOI). . . 1
(h) 56SOW. 1
(i) 315SOW(DCOI) . . 1
(j) 347TFW(DCOOT). . 1
(k) 355TFW(DCOC) . . 1
(l) 366TFW 1
(m) 388TFW(DCO). . . 1
(n) 405FW(DCOA). . . 1
(o) 432TRW(DCOI) . . 1
(p) 460TRW(DCOI) . . 1
(q) 475TFW(DCO). . . 1
(r) 483TAW(DCO). . . 1
(s) 553RW(DCOI). . . 1
(t) 633SOW 1
(u) 6400 Test Sq . . 1

(5) OTHER UNITS

(a) Task Force ALPHA

1. DXI. 1

(b) 504TASG(CA). . . 1

m. USAFE

(1) HEADQUARTERS

(a) ODC/OA 1
(b) ODC/OTA. 1
(c) OOT. 1
(d) XDC. 1

(2) AIR FORCES

(a) 3AF(ODC) 2
(b) 16AF 2
(c) 17AF

1. ODC 1
2. OID 1

(3) WINGS

(a) 10TRW(OIN/50A). . . . 1
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(g) 66TRW(DCOIN-T). . . . 1
(h) 81TFW 1
(i) 401TFW(DCOI). 1
(j) 513TAW(OID) 1
(k) 601TCW. 1
(l) 7101ABW(DCO-CP) . . . 1
(m) 7149TFW(DCOI) 1
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(2) CMT 1
(3) DFH 1

g. AU

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FOREWORD

Seventh Air Force experienced simultaneous pressures to centralize its reconnaissance-intelligence resources for the air war in the North and to decentralize them for the ground war in the South. This paradox bred unorthodox offspring: a photo lab without lab technicians; a recce tech squadron without permanent quarters; a squadron photo lab 270 miles from the squadron.

This report recounts the measured acquiescence by Seventh Air Force to decentralization, and the compelling reasons of 7AF for going slow in implementing TAC RISE. With TAC RISE as the backdrop, the organization and function of the seven reconnaissance photo labs in SEA come into better perspective and illuminate the Army/Air Force systems for requesting, processing, and distributing reconnaissance film.

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CHAPTER I

TAC RISE

Introduction

By mid-1968 serious concern existed in Seventh Air Force and higher headquarters that the Air Force reconnaissance role in support of the Army was deteriorating.[1/] Through late 1967 and early 1968, the Army requests for reconnaissance photo missions fell consistently. Figure 1 illustrates this increasing rejection of Air Force support. Army data for this period show the great bulk of Army requests--priority III--averaged ten days to complete from request to receipt. Even the high priority IIs reportedly took nearly six days.[2/] In mid-June 1968, the U.S. Army, Vietnam (USARV) began a time log of every request to conclusively nail down just how long "not responsive" was.[3/]

The deteriorating situation caused Gen. John D. Ryan, Commander-in-Chief, Pacific Air Forces, to comment to Gen. William W. Momyer, Commander, 7AF:[4/]

> *"...Army requests for Air Force reconnaissance, especially on high priority targets, continue to diminish. It appears that the Marines also tend to rely more on Mohawk coverage rather than our reconnaissance. Records /at/ this headquarters reveal that reconnaissance requests from Army have in fact been on decline for months....Primary reasons for decline in requests apparently based on generally slower Air Force response time."*

General Momyer's reply noted that not only were the Army and Marines turning to the Mohawk, but the Air Force used it in Route Package I and TIGER HOUND for lack of a similar Side Looking Airborne Radar (SLAR) capability. He further observed that Army and MACV directives required maximum use of Army reconnaissance, and thus Army requests to the Air Force declined with

[redacted]

4-7

the increase in Mohawk forces and their deployment closer to the ground troops. However, "the longer response time of our reconnaissance systems is a contributing factor."[5/] To improve Air Force responsiveness, a processing/interpretation facility was moved to Phu Cat and more flights were added to the courier system, but according to General Momyer, "the payoff has been modest". Then he stated:[6/]

> *"If we are to significantly increase the responsiveness of our recon systems, we must properly man and equip our PPIF, RTS, and RITS* exploitation facilities to provide timely processing and interpretation, assume the delivery function to requestors at all levels, and deploy a reconnaissance squadron to each of the northern corps areas."*

Behind this suggestion lay a Pandora's Box of crosscurrents, opinions, proposals, and staff positions on how best to organize Air Force reconnaissance in SEA. The dilemma was to reconcile the need for a decentralized reconnaissance exploitation system in-country, responsive to ground and tactical wing commanders, which would still have a strong reconnaissance system capable of supporting the Air Force mission out-country. There were not enough processing and interpretation resources to achieve both goals to the extent desired. To further complicate matters, the worldwide Air Force tactical reconnaissance system was being reorganized in accordance with Project TAC RISE, to which 7AF was directed to conform. Throughout 1967 and 1968, debate continued within 7AF on how the photo intelligence system should be organized. Many of the questions remain unresolved at this time. Several points at issue were concisely listed

* The PPIF, RTS, and RITS were the photo exploitation lab facilities at the reconnaissance squadron, wing, and 7AF levels, respectively.

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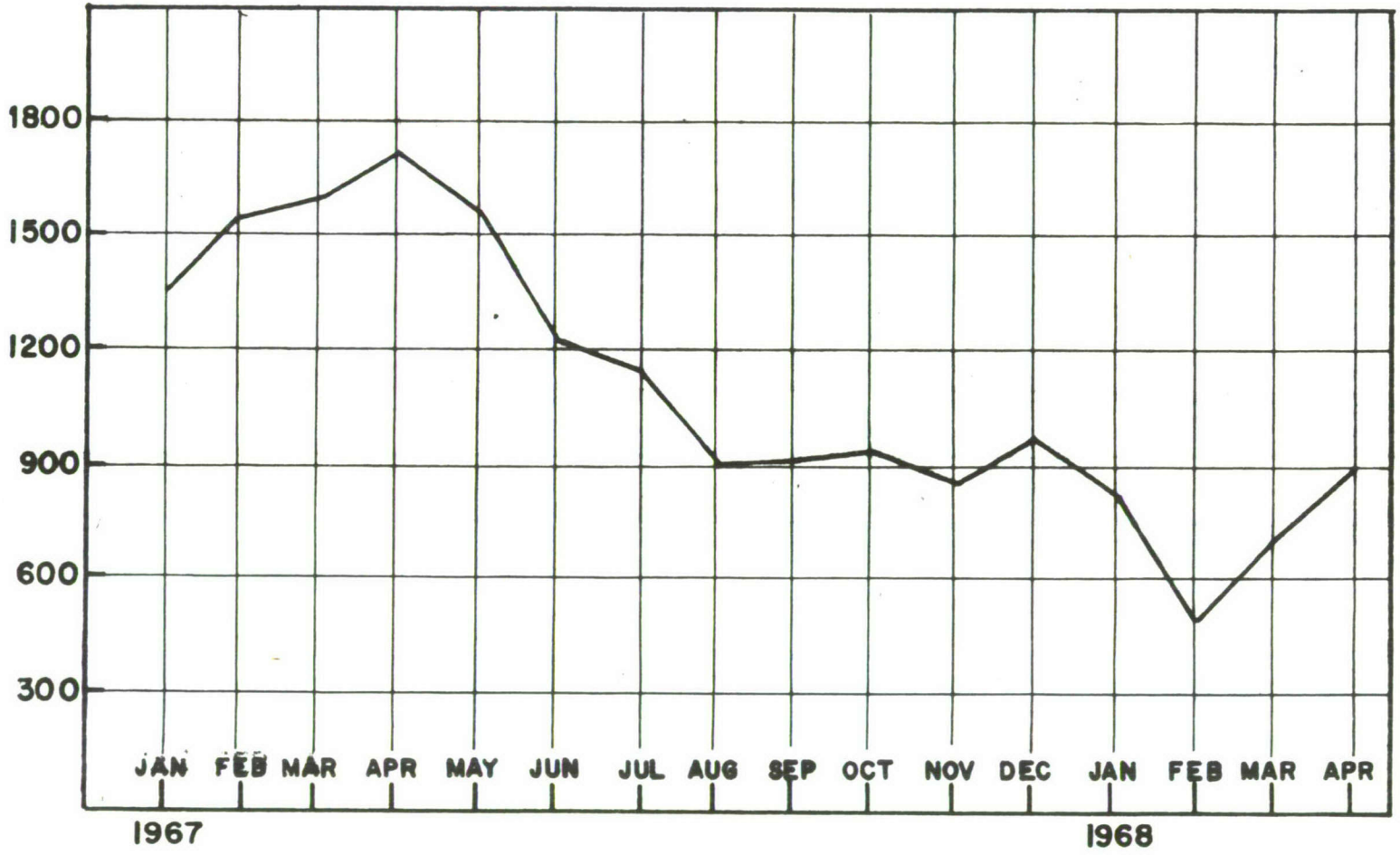
USAF IN-COUNTRY COMPLETED RECONNAISSANCE REQUESTS



NOTE: COMPLETED REQUESTS FOLLOWED THE SAME TREND AS REQUESTS RECEIVED

SOURCE: 7 AF COMMAND STATUS, DEC 1968

FIGURE 1

[redacted]

in the End of Tour report of a former in-country Reconnaissance Chief of 7AF:[7]

> *"This /decline in Army requests/ has resulted because: (a) 7AF has neglected the in-country reconnaissance mission, as a matter of priority, (b) the Air Force has failed to place sufficient imagery processing and exploitation resources in SEA to support both in and out-country operations, (c) compliance with TAC RISE was not effected during the buildup period when additional personnel and resources could be obtained in SEA, (d) the natural quiescence on the part of the Army to protect their bid for a larger and more sophisticated organic force, and (e) 7AF failure to apply current doctrine and concepts that could provide a basis for the development of new joint doctrine favorable to the Air Force."*

Criticism concerning timeliness of Air Force reconnaissance products reached a peak during the second quarter of 1968. Thereafter, Army requests began increasing, total response time dropped, and a significantly larger percentage of Army deadlines were met. Evidence for this is presented at the end of this report.

Concept of TAC RISE

In June 1966, the final TAC RISE report was published by USAF under the direction of the Air Staff. This Tactical Reconnaissance Intelligence System Enhancement (TAC RISE) sought to organize the tactical air reconnaissance mission "in the most effective and efficient manner possible". To do this, the tactical reconnaissance squadrons were to have initial photo processing, reproduction, and interpretation capabilities. Events in the 1962 Cuban and 1965 Dominican Republic crises and the expanding war in Vietnam, revealed how consolidation of the reconnaissance wing's photo processing and interpretation function in the wing's recce tech squadron degraded deployment mobility. During

[redacted]

these crises, "the surge and proliferation of intelligence requirements completely overwhelmed the limited capabilities of the deployed reconnaissance technical units", causing ad hoc arrangements. Among other things, TAC RISE was intended to provide more mobility and expanded processing exploitation capabilities. Theoretically, these factors would speed up initial readouts for Army missions and increase responsiveness.[8/]

The TAC RISE final report proposed the processing and exploitation of reconnaissance film be done in three timed phases. A PACAF talking paper outlined the functions and organizations recommended:[9/]

Phase 1 is critical in timeliness. In this phase, the mission is flown, the film is processed immediately, and a flash or immediate report is sent out. These actions are the responsibility of the flying squadron. The photo processing and interpretation was to be accomplished using a mobile facility (PPIF). This facility could handle up to 1,500' of film from each mission using 72 people working 8-12 hours/day.

Phase 2 is required immediately to satisfy major requestors. A supplemental report is prepared and mass production accomplished. These actions are the responsibility of the tactical reconnaissance wing (WRTS) using a semimobile facility. This facility could produce 8 million feet of film per month using 257 people. The WRTS had the most people to do the most work.

Phase 3 is a delayed product involving the consolidation or fusion of all source intelligence. This phase produces intelligence estimates and detailed target analysis. These actions are a command intelligence responsibility. The work is done in a command reconnaissance technical squadron (CRTS) operating in a fixed facility and manned as required. The study also recognized that crises would occur. To meet the expanded intelligence requirements during these periods, two reconnaissance intelligence technical squadrons (RITS's) were provided. These were assigned to 9AF and 12AF and manned at 199 personnel and deployed as required.

[redacted]

Under the TAC RISE concept, the tactical reconnaissance squadron received equipment and personnel to perform first-phase photo processing and interpretation. The equipment included mobile 8 by 8 by 10-foot shelters that could be assembled into a photo lab complex in less than a day. This WS-430 facility, already in development before TAC RISE, was a refinement of earlier vans and shelters. In SEA, each of the five tactical reconnaissance squadrons was authorized 22 such shelters, with three more vans added later, and 86 men to operate the Photo Processing and Interpretation Facility (PPIF) housed in such a complex.

Each reconnaissance wing would have a recce tech squadron for second-phase interpretation and mass reproduction. These would be housed in semipermanent facilities not quickly deployable. In SEA, the two recce tech squadrons were authorized 161 men each.

Further, one of the two RITS in the Air Force was assigned to 7AF for the Vietnam war. Such a squadron, according to the TAC RISE report, "...would be separate from the wing organization and, in addition to providing mass printing and reproduction of imagery, would function as an intelligence fusion facility to provide timely intelligence and target analysis for the combat commander". The report further envisioned the RITS as freeing the recce tech squadron to "give increased responsiveness to the intelligence requirements of the engaged forces, both Army and Air Force".

The history of the implementation of TAC RISE in 7AF begins with PACAF's seeking to reorganize the 7AF resources along CSAF-approved TAC RISE lines, and of 7AF finding its reconnaissance exploitation resources inadequate to

[redacted]

justify complete implementation of TAC RISE. This chapter explains why 7AF chose to leave one PPIF unmanned and assign the personnel to the Headquarters RITS. PACAF did not approve this procedure and preferred that all PPIFs be fully manned. It suggested recon tech personnel be used in the RITS, if the RITS manning had to be supplemented. By mid-February, the situation remained unresolved.

Implementation

In mid-1966, Gen. John P. McConnell, Chief of Staff, U.S. Air Force (CSAF), directed all commands "to cooperate to the fullest in aggressively implementing" TAC RISE.[10/] However, in SEA the war precluded hasty reorganization of photo intelligence resources, until the impact on 7AF capabilities could be determined and until the status of the proposed RITS became clear. Tight manpower ceilings in South Vietnam, the uncertain availability of photo interpreters, and other scarce intelligence skills made 7AF reluctant to decentralize without being guaranteed preservation of a superior headquarters, intelligence staff, and facility.

In the early years of the war, reconnaissance resources were consolidated at Tan Son Nhut to serve Air Force and MACV Headquarters. The deployment of reconnaissance squadrons into SEA eventually led to forming the 460th Tactical Reconnaissance Wing (460th TRW) at Tan Son Nhut on 18 February 1966. On 18 September 1966, the Thailand squadrons were reassigned to the newly created 432d TRW at Udorn. In the meantime, the 13th Recce Tech of the 460th TRW remained in the photo lab facilities in the 7AF headquarters compound as the primary processing and interpretation squadron in South Vietnam. On 5 October

[redacted]

1966, it was attached to 7AF for "all purposes". In the same month, 7AF proposed the recce tech squadrons be reassigned from the reconnaissance wings directly to 7AF, but this was not approved.[11] Thus, at the beginning of 1967, the in-country reconnaissance wing was centralized at Tan Son Nhut with this unit's recce tech integrated into 7AF headquarters and working directly for the Directorate of Intelligence (DI).

This was definitely not in accordance with the TAC RISE concept and drew special attention from CSAF and CINCPACAF. In a December 1966 message, CSAF proposed to return the 13th Recce Tech to its parent 13th Air Force at Clark without personnel or equipment, and to organize the 460th Recce Tech for assignment to the 460th TRW.[12] This realignment of nomenclature was the first step toward TAC RISE in SEA.

With prodding from CSAF and CINCPACAF, in February 1967, an extensive debate occurred within 7AF over how to implement TAC RISE. Another message from CINCPACAF stated that the squadrons had to be given initial Phase 1 processing and readout capabilities to reduce the response time to Army requests. Therefore, 7AF was requested to make an "immediate and complete review" to identify equipment and manpower spaces authorized for squadron facilities which were at that time assigned to the recce tech at 7AF headquarters.[13]

The 7AF DI and DO staffs could not agree on how far to go toward implementing TAC RISE. DI favored having the recce tech squadrons as paper organizations without manning or equipment. At Tan Son Nhut, the men and equipment would go to the Headquarters RITS, while at Udorn the recce tech

[redacted]

would be in a detachment of the 7AF RITS. In this way, adequate support would be assured Headquarters, 7AF, while at the same time establishing an organizational framework in the manner of TAC RISE.[14/]

On the other hand, DO favored realigning reconnaissance resources: a RITs for direct support of the 7AF headquarters; manned and operational recce techs for both reconnaissance wings, and photo labs at the tactical squadron levels. According to DO, this restructuring of photo intelligence resources would improve the command intelligence capability and be more responsive to the Army.[15/]

On 15 June 1967, the 13th Recce Tech moved to Clark "without personnel or equipment", and the 460th Recce Tech was organized for assignment to the 460th TRW but was housed in the 7AF intelligence facility. The 6470th Recce Tech was organized at Tan Son Nhut and assigned directly to 7AF. Along with these steps, the PPIF of the 12th Tactical Reconnaissance Squadron (12th TRS) became operational in an "A" series WS-430 complex. The 12th PPIF was later reassigned to the 16th TRS and became the 16th PPIF.

In September, approximately one-half of the 45th PPIF was moved to Phu Cat AB with a partial WS-430B complex to support a turnaround capability for reconnaissance jets at the forward operating location. In December, the 6470th and 460th Recce Techs were split administratively to identify their manpower spaces, but they continued integrated operations at 7AF headquarters.

PAD 68-112

Throughout 1968, the controversy over implementation of TAC RISE continued. Personnel in favor of decentralizing in-country reconnaissance resources

strongly supported their conception of TAC RISE. Those insisting on an "adequate" command intelligence facility said if production requirements in the TAC RISE concept had not been underestimated, the impasse in organization would not have occurred. Twice DO and DI, 7AF, seemed to reach an actual compromise, only to find PACAF unable to find it acceptable. PACAF directed activation of the 12th PPIF and realignment of work responsibilities in accordance with TAC RISE.

In December 1967, the Commander, 7AF, directed a study of the maximum extent 7AF could implement TAC RISE within existing resources.[16/] On 12 January 1968, the 7AF Programmed Action Directive 68-112 was published with the following actions to be taken:

- Establish the 12th RITS with 150 manpower spaces.
- Augment the 12th RITS with 86 spaces from the 12th PPIF.
- Move the 460th Recce Tech out of Headquarters 7AF into a Tan Son Nhut flightline WS-430B complex.
- Allocate 34 spaces to the 45th PPIF at Phu Cat.
- Augment the 16th PPIF with 52 spaces from the 45th PPIF.

This compromise met two major problems. First, it supplemented the 150 men authorized the RITS with the 86 spaces of the 12th PPIF. Second, it housed the 460th Recce Tech in the 12th PPIF WS-430 complex in lieu of a permanent facility.

On 15 February 1968, the 6470th Recce Tech was discontinued and the 12th RITS was organized. In April, the 460th Recce Tech moved into the 12th PPIF WS-430B facility and the 12th Personnel spaces were incorporated into the

16-21

RITS. During this period, in Thailand, the 11th and 14th PPIF were physically withdrawn from the 432d Recce Tech facility and established in their own WS-430 facilities. Thus, by April 7AF had one RITS, two recce techs, and four PPIFs operational. However, the 12th PPIF did not exist and workload responsibilities were not in accordance with TAC RISE, and for these reasons, in May PACAF disapproved the 7AF PAD 68-112.[17/]

With this veto, the debate began again over decentralization under TAC RISE. It was at this time that CINCPACAF expressed concern over the lack of Air Force responsiveness to Army requests. In June, DO, 7AF, proposed that the 45th TRS (RF-101s) follow its PPIF north to Phu Cat and the 16th TRS (RF-4s) move with its PPIF to Cam Ranh Bay or Da Nang. This would "significantly improve the responsiveness of 7AF recon forces" and "provide an immediate improvement in response to Army and Marine requirements". The 12th PPIF would become operational at Tan Son Nhut. Until this could be done, DO proposed that Da Nang have a limited processing facility similar to Phu Cat.[18/] General Momyer disapproved the plan:[19/]

> *"Under the conditions we are now operating, I do not wish to change the reconnaissance organization or location of units. With a shortage of people, saturation of bases, low level of enemy activity, bombing pause and flexibility we have from present posture, I am convinced we are going the right direction. TAC RISE is not a valid concept for the tactical situation we now have."*

By "not a valid concept", it is uncertain whether General Momyer had in mind the deployment of squadrons, or the whole TAC RISE apportionment of resources.

Brig. Gen. George J. Keegan, Jr., Deputy Chief of Staff, Intelligence,

7AF, said he could see nothing wrong with the proposal provided the command intelligence capability was not diluted. His guiding principle was: "Air war comes first". By "dilution", he meant taking resources away from 7AF headquarters facilities. He doubted if "anything short of quantum jump" in improvement would "dissuade" the Army from moving toward an organic reconnaissance capability. He also raised an important question sometimes overlooked: "precisely how much better service would be given" by deploying the squadrons? The General informally suggested that a dedicated jet/helicopter courier system would save about as much time as moving jet squadrons to forward operating locations. Also permitting the Direct Air Support Centers (DASCs) to schedule some reconnaissance might be a big time saver.[20/]

The DASC was an area of potential improvement. The beddown and scheduling of Air Force reconnaissance aircraft from the beginning of the war had been at Tan Son Nhut. The DASCs had never participated in the tactical reconnaissance system in South Vietnam to the extent envisioned by Air Force/Army doctrine. In August, DO staffed a paper to place reconnaissance personnel at division tactical air control parties (TACPs) and at the DASCs.[21/] This would emulate the successful liaison accomplished by the air liaison officers (ALOs) and tactical airlift liaison officers (TALOs) at division level. In actual practice, only the DASCs had reconnaissance duty officers and these had little time for liaison work with the divisions and brigades. Consequently, the Army commanders lacked Air Force field direction on technical capabilities of Air Force reconnaissance and were less likely to get what they wanted.

As of February 1969, reconnaissance ALOs did not exist at divisions,

though some staff work was being done within 7AF toward this end. Ideally, the Air Force reconnaissance ALOs should have been situated in the Army and Marine air reconnaissance sections. The actual situation was not very good:[22]

MACV:	DO, 7AF, and reconnaissance TASE collocated in same room at 7AF.
I Corps:	III MAF Air and Horn DASC were located at same headquarters in Da Nang but not in same building.
XXIV Corps:	XXIV Corps Air and DASC Victor were located at same headquarters at Phu Bai but not in same bunker.
IFFV:	Army G-2 Air reconnaissance and DASC Alpha were located in the same office at Nha Trang.
II Corps:	Neither Army personnel nor reconnaissance ALO were situated at II DASC in Pleiku.
II FFV:	An ALO was located at Field Force Headquarters at Long Binh.

In one respect, action was taken to use the DASCs to achieve increased responsiveness. Under the Single Manager procedure established by COMUSMACV in March 1968, the I Corps DASC would have "divert authority for all aircraft fragged into I CTZ".[23] But I DASC did not get this authority for reconnaissance. A III MAF evaluation of the Single Manager concept emphasized this failing.[24] In November, a 30-day test in I Corps gave Horn DASC, which supported III MAF, authority to divert up to three Air Force I Corps reconnaissance missions a day and any list Marine Air Wing missions.[25] Prior to this innovation no DASC had the divert authority for immediates normally associated with the tactical air support system. The procedure was continued after the test, but as of February 1969, only Horn DASC had this divert authority, though 7AF staff action was being taken to expand the system to all corps DASCs. For

November 1968 through January 1969, there were three tactical immediate diverts and four test diverts of reconnaissance missions in I Corps.[26/]

Proposal to Modify the Recce Tech

In October 1968, PACAF reminded 7AF that PAD 68-112 had not been approved and that tactical reconnaissance squadrons would have PPIFs. PACAF recommended moving the 12th PPIF's personnel out of the 12th RITS. In view of 7AF's continued opposition to implementation of TAC RISE, PACAF provided that headquarters with organizational latitude as far as consolidation of the WRTS and RITS was concerned, provided the workload responsibilities were correspondingly realigned.[27/] Within 7AF, the whole TAC RISE controversy continued. DO and DI disagreed markedly, with DO adamantly opposed to eliminating the recce tech squadron or assigning it to the 12th RITS. Since the 460th TRW served the ground commanders in-country, some personnel, especially in DO, feared moving assets from the Wing to 7AF headquarters would degrade Air Force support to the Army.[28/]

A brief review of manning within the 12th RITS is fundamental to the debate. Prior to the establishment of separate PPIFs and a recce tech, the combined 6470th/460th Recce Tech at 7AF headquarters had 569 authorized spaces. Of these, 7AF PAD 68-112 sought to apportion 150 to the 12th RITS, 161 to the 460th Recce Tech, and 86 to each of the three PPIFs. Later, the 12th RITS gained seven extra spaces to support IGLOO WHITE in Laos. However, the RIT's authorization included no lab technicians for what was called the largest and best-equipped imagery facility in 7AF. The 45 lab technicians filling a portion of the 86 spaces of the 12th PPIF provided some relief.

According to the DCS/Intelligence, 7AF, "The implementation of the above decentralization seriously degraded the intelligence support to the commander and staff at 7AF Hq...."[29] Increased manpower authorizations had been sought in September 1967, but were not forthcoming.

In August 1968, the 7AF Chief of Staff requested validation by PACAF of: (1) 99 additional manpower spaces; and (2) the 12th PPIF spaces remaining under control of the 12th RITS.[30] PACAF responded by suggesting that recce tech manpower might be used to support the 12th RITS, rather than counting on the PPIF assets.[31] Some interpreted this as a suggestion to streamline the recce tech organization, with the resulting "extra" spaces being transferred to the RITS.

During a visit to 7AF in late 1968, General McConnell was apprised of the RITS manning and approved 150 more spaces. Adding these 150 to actually existing assets would provide:

12th RITS	157
12th PPIF	86
CSAF Approved	150
Total Personnel Spaces	393

According to DCS/Intelligence, this would provide:[32]

> *"...sufficient manpower for photo interpreter support of 7AF targeting requirements for contingency plans against NVN and support of operations in Laos and in SVN (such as at Khe Sanh, Kontum, or Tay Ninh). Exploitation of U-2, SR-71, and drone photography along with LOC analysis*

for MACV, PACAF, CINCPAC and USAF would be performed more competently than possible at present."

The proposed manning should be compared to that postulated in the PACAF talking paper on TAC RI --672 spaces--and the actual manning in 7AF--576 spaces. In view of the tight manpower ceilings in South Vietnam, and the requirements of 7AF operations such as COMMANDO HUNT, NIAGARA, and ROLLING THUNDER, two successive 7AF commanders decided their reconnaissance-intelligence resources should be heavily concentrated in the RITS:

	Actual	TAC RISE*
12th PPIF	0	72
16th PPIF	86**	72
45th PPIF	86**	72
460th TRS	161	257
12th RITS	243	199
	576	672

A manpower request was submitted to PACAF for the 150 additional spaces approved by the CSAF contingent on retaining the 86th PPIF spaces. In January 1969, PACAF approved placement of the 150 authorized spaces on the 7AF Priority List of Outstanding Requirements, but stipulated the 86 spaces of the 12th PPIF would be returned to the 460th TRW.[33/] Gen. George S. Brown, Commander,

* CRTS considerations to support Phase III requirements, as foreseen by TAC RISE, are not included.

** Fifty-two spaces of the 45th PPIF were available for the 16th PPIF.

7AF, advised Gen. Joseph Nazzaro, Commander-in-Chief, Pacific Air Forces, at a meeting in Udorn, Thailand, on 24 February 1969, the proposal was not the one CSAF had approved, and that the 7AF Commander would retain these assets in the 12th RITS where they were needed.[34/]

One important point should be clarified. The final TAC RISE report identified the marriage of reconnaissance and intelligence by often referring to Tactical Reconnaissance-Intelligence. However, this report deals with reconnaissance photo production and not with photo interpretation quality or intelligence exploitation. Yet, the quality and quantity of intelligence exploitation performed in 7AF headquarters for the 7AF Commander were major considerations in the TAC RISE debate in SEA. This report does not examine the factors favoring a strong, fully-manned RITS with nearly the same detail, as it does those considerations favoring improved support of photo production for the Army. Therefore, it does not provide a balanced consideration of the ultimate objective of all photo production, namely the production of intelligence.

The correspondence was voluminous between general officers within PACAF and 7AF concerning TAC RISE and the 12th RITS. A few of their comments are quoted to indicate the tenor of the various points of view. These viewpoints, especially in DI and DO, 7AF, remained consistent for at least two years, during which time there was a complete turnover of general officers at 7AF. In-country intelligence collection and exploitation were primarily the responsibility of MACV. However, though DI, 7AF, concentrated on the out-country war, it also assisted MACV with in-country intelligence work. This

greatly increased under General Keegan's directorship. The emergency created by the siege of Khe Sanh caused 7AF to assume large in-country targeting responsibilities. All photo, significant intelligence (SIGINT), and PW exploitation were centralized, as were targeting of B-52 strikes and naval, Marine, and 7AF tac air strikes. MACV loaned 30 Army photo interpreters to the 12th RITS and Air Force commands worldwide provided 65 emergency augmentees. These centralized resources in the 12th RITS enabled the 7AF Commander to support Operation NIAGARA at Khe Sanh.[35/]

DCS/I, 7AF, based on the Khe Sanh experience, was convinced that the Air Force should produce its own intelligence for targeting or be in default on its obligation to support ground forces in-country. As stated in General Keegan's coordination notes of 3 March 1969:[36/]

> *"In country interdiction of enemy LOC within SVN was initiated by the DI, with MACV concurrence, as a result. The inability of the 12 RITS to repeat its Khe Sanh targeting for the siege of Tay Ninh City between August and December again brought the issue of 12 RITS manning to a head with Gen. Brown."*

To run the out-country air war, the 7AF Commander had to have an extensive intelligence exploitation capability--the DI/RITS. By the "accident" of 7AF headquarters being located in South Vietnam, the question of apportioning photo intelligence resources under tight manpower ceilings became one of finding a balanced manning between the 460th TRW and DI/RITS. But DO was responsible for providing reconnaissance support to the in-country ground forces and for doing so by decentralizing its resources as prescribed by TAC RISE. (DO was also, of course, deeply committed to managing

the out-country air war). Thus, both DI and DO were legitimately and logically striving to accomplish their missions. Such divergent thinking was a clear sign of the need to explore, direct, and decide Air Force missions and doctrine as influenced by the war in SEA. TAC RISE did just that and was approved by the Chief of Staff, U.S. Air Force. Its concept is doctrine.[37/]

The following were some comments on the issues. According to Maj. Gen. Ernest C. Hardin, Jr., DCS/Operations, PACAF:[38/]

> *"The highly centralized photo production operation of 7AF DI, together with the steady bleed off of functions and resources from the wings, is not in consonance with the objectives of TAC RISE."*
>
> *"...we should try to streamline the recce request system. Although DASC's exist in each corps area and are used daily to provide responsive airlift and close air support, all recce requests are funneled thru TASE/TACC and are treated as preplanned requests. This routine builds in a 1-3 day communication/coordination delay which is not acceptable to ground commanders...Allocation of sorties to the DASCs would provide realistic and responsive reconnaissance support to ground commanders."*

Maj. Gen. Rockly Triantafellu, DCS/Intelligence, PACAF, observed:[39/]

> *"PACAF, DI, has proposed elimination of the wing-level recce tech organizations for the following reasons:*
>
> *"(a) The squadron-level PPIF can produce all the recce tech support needed to complete the tactical air recce cycle, i.e., immediately process, interpret, report and produce prints for on-going ground/air operations.*
>
> *"(b) The wing-level recce tech organization (squadron) can do little if any further exploitation of the film because it does not have all source intelligence to collate with the film.....*
>
> *"(e) If PPIFs are manned and equipped to perform the immediate recce tech task and only the numbered air force recce tech can*

complete the task in terms of finished intelligence and volume production, then the wing recce tech appears to be an unnecessary middle-man organization. It consumes time, people and equipment, and it confuses management on the division and assignment of tasks."

In the opinion of Maj. Gen. Gordon F. Blood, DCS/Operations, 7AF, increasing responsiveness to Army requirements was imperative. He favored full implementation of TAC RISE:[40/]

"The /PPIF/recce tech/ organization basically provides for decentralization and a dispersed operating capability which is in line with the wide dispersal of normal users of reconnaissance products."

* * * * * * *

"Centralization of the exploitation function at Seventh Air Force inhibits response to the decentralized requestor/user who must exploit and make decisions locally based on responsive reconnaissance support. Complex centralization at a non-decision making level in the system slows down responsiveness and must be avoided. The increased service now provided the Army requestors under the decentralized TAC RISE concept is ample proof that the previous centralization at Seventh Air Force was not a valid concept in the counterinsurgency environment of South Vietnam."

Asked by the Commander, 7AF, to comment on 7AF implementation of TAC RISE, Brig. Gen. Robert J. Holbury, Director of Combat Operations, 7AF, stated:[41/]

"I strongly support the concept and organization as set forth in Project TAC RISE. If fully implemented and manned, it provides the Reconnaissance Wing Commander with the resources to accomplish this assigned mission. I would compare the RTS and PPIFs in a tactical reconnaissance wing to the weapons loading and handling crews of a tactical fighter wing. Each should be assigned to and commanded by the Wing Commander. I am strongly supported on this position by the Commanders of the 460th and 432nd Tactical Reconnaissance Wings. I am strongly opposed to the RTS units being a part of higher headquarters DI staff. This would be a

serious mistake in my opinion. The TAC RISE organization basically provides for decentralization and a dispersed operating capability, which is in line with the wide dispersal of normal users of reconnaissance products."

* * * * * * *

"Another strong point in the TAC RISE concept is the formation of a tactical reconnaissance organization with designated manning and facilities to operate from dispersed locations. A squadron of aircraft supported by its assigned PPIF and augmented by personnel/facilities from the RTS can deploy to another base and operate as a self-sustained unit. I feel certain that our reconnaissance bed-down here in SEA would have placed reconnaissance units closer to the Army requesters in I and II Corps had these reconnaissance units possessed a dispersal capability as envisioned by TAC RISE, at the onset of the SEA conflict. There are a number of very practical reasons for not dispersing the 7AF recce units at this point in time."

Brig. Gen. George J. Keegan, Jr., DCS/Intelligence, 7AF, considered it mandatory, as had his predecessors, that the RITS have first priority on photo intelligence resources to insure production of intelligence products for 7AF headquarters. He questioned the applicability of TAC RISE in SEA, which brought the whole debate full circle.[42/]

CHAPTER II

RECONNAISSANCE PHOTO SYSTEM

Introduction

Air Force photo reconnaissance in mainland Southeast Asia had two wars to fly and two primary users to satisfy. In South Vietnam, nearly all reconnaissance film went to the ground commanders, including Army, Marine, and MACV. Out-country missions were flown in support of Air Force and MACV operations in Laos and North Vietnam. Reflecting this duality, in-country reconnaissance mission requests went from MACV directly to DO 7AF, for fragging, but out-country requests came from MACV to 7AF for inclusion by the DI targeting section of Air Force requirements and then the combined requirements were forwarded to DO for fragging.

During 1968, the two reconnaissance wings in SEA processed 72 million feet of original and duplicate reconnaissance film.[1/] Much of this film--especially from Laos and North Vietnam--also went to higher headquarters and to national intelligence agencies for further exploitation. Thus, the Air Force reconnaissance system in SEA served a spectrum of users from ground troops probing enemy jungle areas to technicians at DIA in Washington employing precision intelligence labs. The needs of these users varied. Some users wanted real-time information and photos to fight a fleeting enemy; others required high quality photos for intensive exploitation.

The 460th TRW at Tan Son Nhut had an UE of 36 RF-4s in two squadrons at the end of 1968, an UE of 16 RF-101s in one squadron, and two RB-57s assigned

to a wing detachment.[2/] These aircraft flew both in-country and out-country missions. Their film was processed and initially interpreted by two photo labs located on the Tan Son Nhut flightline. Phu Cat provided a turnaround capability for recce aircraft, and its small photo lab handled many of the I Corps missions. During 1968, the wing processed 15.8 million feet of original negatives and 33.7 million feet of duplicate film. From January to December 1968, the total monthly footage decreased from 4.5 million to 3.6 million feet. Exact totals may be found in Appendix I.

The 432d TRW at Udorn, Thailand, had an UE of 40 RF-4s in two squadrons at the end of 1968.[3/] It also had two fighter squadrons of F-4s, making it the only mixed fighter/reconnaissance wing. The wing's RTS and two PPIFs processed 9.1 million feet of original negative and 13.6 million feet of duplicate film during 1968. From January to December 1968, the total monthly footage increased from 1.0 million to 3.4 million feet.

Requests

Ground commanders normally initiated requests for in-country photo missions. Typical targets included periodic photo surveillance of Cambodian and Laotian border areas, suspected enemy transshipment points, enemy activity in specified 10 by 10 kilometer squares, or enemy campfires detectable by infrared night missions. Different command levels might use the same recce film for different purposes. A battalion commander could use the points to give a current map of an area of impending operation. MACV's Combined Intelligence Center Vietnam (CICV) would be interested in detailed supplemental readouts of all indications of enemy activity.

Requests stayed within Army or Marine channels until they reached Field Force or corps level. Indeed, MACV Directive 95-11 directed that reconnaissance requests be forwarded over the Army Air Request Net to the TASE. Each command level reviewed the requests for completeness of information, duplication of previously approved requests, and correctness of priority. Each higher headquarters adjusted and combined targets into logically manageable requests. If possible, the ground commanders were directed to use organic aircraft to complete the missions. Examples of this type were using hand-held cameras in the O-1 observation plane, or flying infrared missions in the Mohawk OV-1. Once the Field Force G-2 Air approved the request, it went to the MACV J-2 Tactical Air Support Element (TASE) physically located at 7AF headquarters at Tan Son Nhut. Reconnaissance TASE personnel shared a room with the DO in-country reconnaissance fragging section of 7AF. The TASE manned by Army and Marine personnel, had the final authority to disapprove, downgrade, or approve all requests, and then to task 7AF with the approved requests. The latter fragged the 460th TRW or the 1st Marine Air Wing to accomplish the missions, with the actual targeting of the aircraft done by the wings. To speed processing, the 460th TRW several times a day picked up working copies of the requests received at the TASE, thus getting advance notice of targets which would be in the next frag. Sometimes, under favorable circumstances, the target was flown before the formal frag was received.[4/] Appendix II duplicates the "Tactical Air Reconnaissance and Aerial Battlefield Surveillance Request" form used in South Vietnam.

Army doctrine assumed the recce squadrons would be dispersed throughout

the theater of operations, but in South Vietnam the squadrons were centralized at Tan Son Nhut. Army Field Manual 30-20, concerning reconnaissance support for a field army, envisioned a reconnaissance squadron at each corps level and a DASC to control and coordinate air operations in the corps: 5/

> *"At the DASC, the Air Force reconnaissance officer will coordinate the request with the corps G2 Air. If the G2 Air disapproves the request, the DASC will notify the requester of the disapproval through the TACP. If the G2 Air approves the request, the DASC will then direct one of the TAF /Tactical Air Force/ reconnaissance squadrons to accomplish the mission."*

These procedures were not followed in South Vietnam and the reconnaissance officers at the DASCs did not participate in the validation, transmission, or fragging to the extent expected by Army and Air Force doctrine.

A procedure similar to the Army request system took place in I Corps, except that III MAF in Da Nang notified the TASE. Since the Commander, 7AF, exercised Single Manager control of Marine jet reconnaissance aircraft, III MAF submitted the Marine and Army I Corps requests to the TASE, who in turn passed the approved requests to 7AF for fragging. There was no special effort to frag Marine air for Marine troops, but rather the frag capitalized on the Da Nang basing of the Marine RF-4s to enhance scheduling. All Marine reconnaissance flights remained in I Corps. The following procedure did have the effect of devoting Marine air for Marine troops. To give III MAF a procedure for advance notice analogous to the pickup system of the 460th TRW, 7AF authorized III MAF to designate missions it wished flown by Marine air and to pass the target data directly to their wing. This was done often.

Since 7AF had never disapproved these requests, the Marines sometimes flew the missions before receiving the formal frag. This working authority gave III MAF a more immediately responsive reconnaissance force, while reserving for MACV and 7AF the Single Manager control of air in I Corps.

The TASE also received and validated requests from various American agencies such as 7AF DI and the MACV CICV, from the Free World Military Assistance Forces and the South Vietnamese. The latter's requests went through the Field Force/Corps G-2s for air and then to the TASE for final validation. However, the Vietnamese also had three RC-47s based at Tan Son Nhut and these were fragged by the Vietnamese Air Force (VNAF) for two or three missions a day in III and IV Corps. Targets were supplied by the TASE/DO. VNAF liaison officers sat in the TASE/DO office of 7AF to insure smooth coordination.

Requests were assigned a MACV priority and a date no longer of value (DNLV). The latter was the suspense by which the mission would be completed or automatically cancelled unless extended by the requester. MACV Directive 95-11 designated five priorities: Immediate and I through IV. In actual practice, the priority I requests received the handling and aircraft resources of Immediates and the latter category was not used by the TASE or the Air Force. No specific time guidelines existed for completion of the various priorities, though for working purposes 7AF sought to get the film to the requester not later than 24 hours for priority Is and within 48 hours for priority IIs. The MACV directive defined the priorities as follows:[6/]

"Priority One: Surveillance of a major unit or activity of a nonpolitical nature which threatens the national security of the Republic of Vietnam; is essential to the national defense of the United States; or its preventing or seriously hindering the accomplishment of a mission by a major friendly force. Requests in this category will be accomplished and processed as expeditiously as possible. Results will be disseminated by the most rapid means available, including special courier. This priority may be assigned to requests designed to exploit major targets of opportunity or perishable targets.

"Priority Two: Surveillance of units or activities capable of hindering or seriously interfering with the mission; in support of operations in progress; in support of operations beginning within 48 hours of the requested time on target; or to meet intelligence requirements of critical importance.

"Priority Three: Surveillance of units or activities capable of posing a future threat; for target development; and in support of operational planning.

"Priority Four: Surveillance of units or activities capable of limited interference with the mission; in support of routine planning; or to meet administrative and logistical requirements. Terrain studies, map supplements, non-tactical imagery, basic cover and training imagery will be accomplished after all other requests."

In view of common complaints about Air Force "responsiveness", the priority system gave few guidelines concerning deadlines. By what criteria was responsiveness to be measured? Was it responsive when from mid-June to mid-July 1968 the total elapse time for priority III missions was ten days from initial request at the lowest Army level to receipt of film by the requester? Should the elapse time have been five days or even three days? The MACV directive on priorities established no definite time limits. However, the priority identified the importance of the mission, while the DNLV established the specific deadline of the target request. Some Air Force reconnaissance personnel in DO, 7AF, asserted that delivery of the film by the DNLV was "responsive".[7/] However, the Army apparently considered

the DNLV a deadline, not a desired time. According to an Army letter on the subject from USARV, "It is now the policy at the TASE to consider each request submitted as wanted by the requester as soon as possible, regardless of the stated DNLV."[8/]

Under 7AF policy, all available resources were assigned as necessary to complete a priority I mission. Scrambled or diverted aircraft flew the target until it was covered; the PPIFs reserved a processing unit for immediate use upon download of the film; photo interpreters dropped all other work to extract the requester's Essential Elements of Information for phone transmission to the requester, and a special courier flight was scheduled if the regular flights were not satisfactory. The DO in-country reconnaissance section monitored each mission with a checklist and notified appropriate personnel in the 7AF command center and in the field on where and when the film would be delivered.[9/] In January 1969--a representative month--six priority I missions were processed by 7AF.[10/]

Priority IIs were normally "double scheduled" with a primary and a back-up aircraft to insure coverage. Like priority Is, they received immediate processing and interpretation. Priority IIIs were scheduled routinely, as soon as practical, and continued to be so scheduled until the mission was completed or the DNLV was only four days away. Then the priority III received primary scheduling at prime time. Seventh Air Force received very few priority IV requests and they were of course last in importance.[11/]

In Army parlance about reconnaissance requests, the terms "immediate"

and "preplanned" referred to the requests themselves, not to the fragging. Immediates were for combat situations occurring so suddenly as to require an immediate request for reconnaissance. "Preplans" had a leadtime allowing the routine submission of requests. Preplans were usually submitted early enough for inclusion, if approved, in the MACV "Monthly In-Country Aerial Reconnaissance Plan". This published list of approved target missions included the frequency of coverage desired per month and the recipients of the photos.[12/]

On 1 January 1969, III and IV Corps went to the system already used in II Corps of putting most preplans on an "as required" basis. Prior to this innovation, large numbers of missions were fragged as tasked by the monthly plan. Naturally, a reconnaissance plan one or two months old was apt to be made obsolete by subsequent events. However, it was easier for staff sections to let the missions be flown than to initiate action canceling the unnecessary ones, especially since the film "might turn up something". This passivity produced much unwanted film.[13/]

The monthly plan also suffered from a large number of targets that were often blocked out in squares of jungle, mountains, or flood plains. At one time there were around 1,200 separate sorties required by the monthly reconnaissance plan. Quite often these were 10 by 10 kilometer squares, because the Army map grids used this scale. The real solution to this problem lay in showing the ground commanders that the more exact and limited their target, the greater the chance of 100 percent coverage. For instance, a commander should not request an area target, if he wanted only road or river coverage.

Although this would appear obvious, the large area block targets absorbed sizable reconnaissance resources. In part, this situation arose because some Army commanders used Air Force reconnaissance to make a general search of enemy activities, something for which it was not designed. Army intelligence personnel, not Air Force photo interpreters, were responsible for collating intelligence about the enemy. Putting much of the monthly reconnaissance plan on an "as required" basis forced the Army to constantly reevaluate its needs and encouraged more specific targeting. Some requests, especially periodic border coverage along Cambodia and Laos, continued to be tasked by the monthly plan.[14/]

The out-country reconnaissance request system compared to in-country procedures was considerably simplified due to the absence of sizable U.S. ground operations in Laos and North Vietnam. The request net was simpler without many scattered ground units generating the majority of requests. Much of the reconnaissance was in direct support of Air Force operations such as TIGER HOUND and COMMANDO HUNT. MACV J-2 Air processed requests from national agencies such as DIA, as well as its own intelligence sections such as CICV. Monitoring land and water routes were of special interest in determining enemy infiltration into South Vietnam. A "BLUE TREE, YANKEE TEAM Reconnaissance Plan" for Laos and North Vietnam was published monthly by MACV listing all MACV authorized reconnaissance targets, of which the most common were segments of lines of communications and national borders. This framework of targets and priorities was sent to the DI target materials section of 7AF. MACV did not allocate all available out-country Air Force reconnaissance; thus, 7AF also drew up guidelines for its out-country reconnaissance needs. The

coordinated total monthly requirements then went to the DO out-country reconnaissance branch, which fragged the 432d TRW and the 460th TRW if necessary. Unlike the in-country frag which gave the 460th TRW the daily target list and allowed the wing to schedule the missions and times, the out-country frag office put out the complete daily schedule down to the exact missions and the times to be flown. The MACV monthly plan was a guideline, a framework for planning. Seventh Air Force often requested and secured the diversion of MACV allocated sorties for higher and more pressing missions.

Processing

Through the last half of 1968, seven squadrons on mainland SEA handled the vast bulk of reconnaissance film processing and distribution for the Air Force. The two tactical reconnaissance wings each had recce tech squadrons and two PPIFs. The seventh squadron was the RITS assigned directly to 7AF and located in the 7AF headquarters compound.

A sequential processing was established, with some photos going from the PPIF to the recce tech to the RITS as the photos received supplemental readouts. This was much more true of the 432d TRW products in Thailand than of the 460th TRW products in South Vietnam. In-country reconnaissance photos went to the Army, while 7AF retained the original negatives for one year. (By mid-February 1969, some 7AF personnel were informally exploring the possibility of sending the original negative to the Military Intelligence Battalion [Aerial Reconnaissance and Surveillance] (MIBARS) and eliminating the need for a duplicate negative.) The out-country photos were a primary intelligence source for Air Force operations in Laos and North Vietnam, and were duplicated

for dissemination throughout the Air Force.

This report briefly describes the several photo squadrons and the make-up of their routine workloads. Production statistics were grouped in one of five categories: original negative, duplicate positive, duplicate negative, SONNE roll, and select print. A duplicate positive was the reverse of a negative, with the blacks and whites appearing in their true relationships on the transparent film.

The declining skill level of photo interpreters (PIs), due to rapid personnel turnover in 7AF made duplicate positives increasingly desirable for PI work. (The greater ease of making a readout from a duplicate positive has been balanced against the added time spent in reproducing the positive.) A SONNE roll was a continuous print of a roll of negative film. Its inferior quality, as compared with a duplicate positive, made the SONNE roll undesirable for PI work but practical for mosaic assemblies. The select prints could be individually produced or printed on rolls for later cutting into individual prints. Production statistics were usually compiled in feet processed for all five categories, though often select prints were totaled as numbers of prints each. (In this report, one print equals one foot of production, an obvious underestimate.)

Once the Air Force developed the original negative and readout--the Army or Marine requester's Immediate Photo Interpretation Report (IPIR)--the film was sent to the Army for a more detailed Supplemental Photo Interpretation Report (SUPIR), which was accomplished by Army MIBARS. There were

five operating photo labs in South Vietnam, one each at the Corps Headquarters: Can Tho (IV), Bien Hoa (III), Nha Trang (II), Da Nang (I), and Phu Bai (XXIV). The Air Force supplied a duplicate positive and a duplicate negative of each Army request (and Marine request) to the appropriate MIBARS, as well as prints to the ground commanders as requested. The MIBARS could produce prints, but then did not process negative and positive film.[15/]

The 460th TRW had two PPIFs and one recce tech to process the film of its three tactical reconnaissance squadrons--the 12th, 16th, and 45th. Lacking its own PPIF facility, the 12th TRS film was processed by the 16th PPIF and by the recce tech. The 45th PPIF was at Phu Cat, but half its vans were at Tan Son Nhut to augment the ~~16th PPIF~~. 460th Recce Tech

16th PPIF
The ~~460th Recce Tech~~ had 30 vans in its WS-430B complex located on the Tan Son Nhut flightline near reconnaissance and courier aircraft. The PPIF had the original 22 vans of the WS-430B plan, plus two extra storage vans and a high speed Niagara printer van. In addition, for administrative and storage space, there were five "A" series vans and two Jamesway huts. Figure 2 shows the factory complex of 22 vans assembled into two 11-van halves for potential deployment to two separate locations. This figure also shows the 16th PPIF as actually assembled to approximate a recce tech facility.

The PPIF was authorized 6 officers and 80 airmen. In addition to the 22 authorized AFSC 206X0 Photo Interpreters, there were 8 to 10 Army interpreters furnished by the MIBARS headquarters in Saigon. These men worked for the Air Force but lived with their Army units.[16/]

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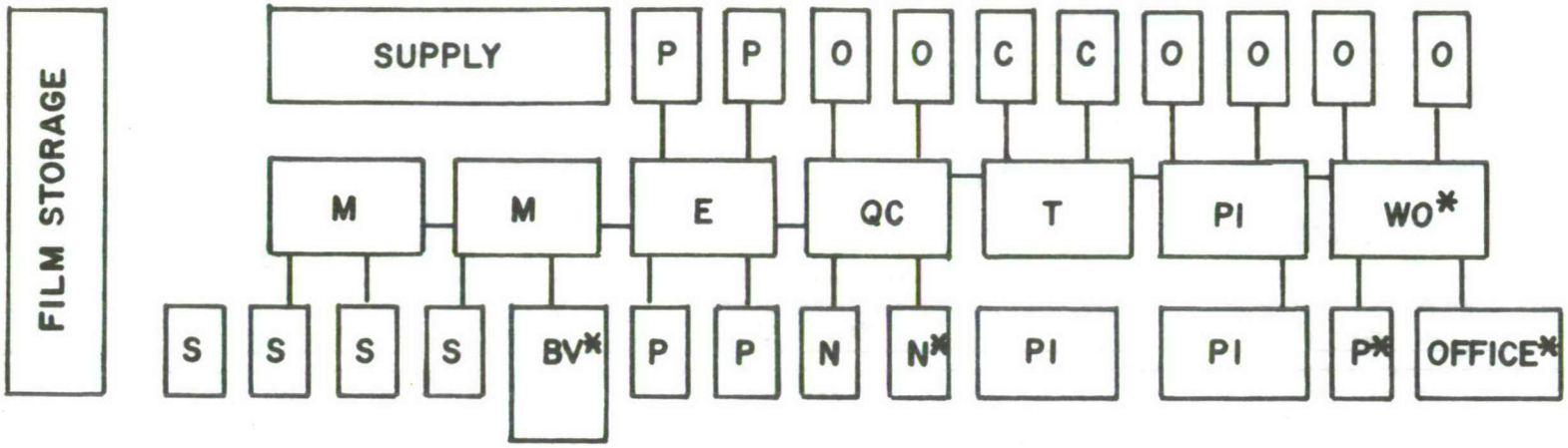
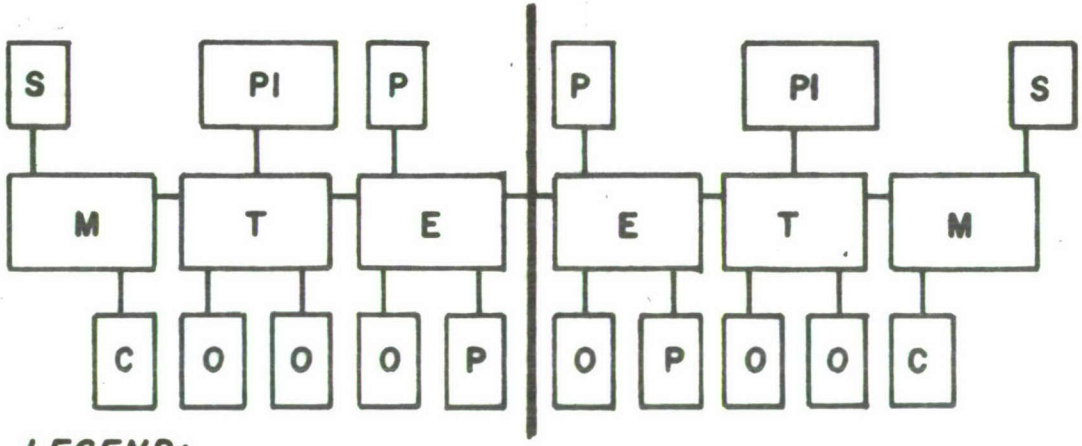
30 VAN LAYOUT OF 16TH PPIF (JAN 1969)



22 VAN LAYOUT OF CONTRACTOR DESIGN



LEGEND:

BV- BREAK VAN
C - CHEMICAL
E - EDIT-INSPECT
M - MAINTENANCE
N - NIAGARA
O - PROCESSING
P - PRINTING
PI - PHOTO INTERPRETATION
QC- QUALITY CONTROL
S - STORAGE
T - TITLING
WO- WORK ORDERS

* "A" VANS

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FIGURE 2

The PPIF handled only in-country photos, of which an estimated 90 percent plus were for ground forces. Interpretation from the original negative provided the IPIR, gave a quick readout of essential elements of the mission request. This provided a report on the fragged mission objectives and any significant enemy activity such as troop concentrations or strong point construction. The initial IPIR readout was forwarded to the requester within 24 hours of chock time, and then the required copies of the photos were produced. The type and number of copies were given in the MACV "In-Country Aerial Reconnaissance Plan " or in the frag.

The original negative was directed to the 12th RITS film library to be kept 60-90 days and then it was sent to the VNAF. The copies of the original were packaged along with copies of the IPIR and the mission trace (a map outline of where the film was exposed), and delivered to the requester through the courier system. Supplemental readouts were made by MIBARS and other MACV, Army, or Marine units.

The 460th Recce Tech had 40 vans, including several "A" vans and 11 "B" vans belonging to the 45th PPIF, thus occupying a PPIF and a half. It was authorized 11 officers and 150 airmen. The recce tech did initial processing and interpretation of in-country and out-country film. Of the 35 to 40 daily in-country reconnaissance missions flown by the 460th TRW, the squadron took the first ten priority III missions to help the 16th PPIF. The PPIF did all the higher priority Is and IIs and any priority IIIs above ten. Priority IIIs were much less likely to have hot items and thus the hot items were usually discovered in the PPIF, which had land lines to Army users. Prior

to the November bombing halt, the recce tech did the out-country missions and the PPIF the in-country missions.[17/]

Water in volume was available at Tan Son Nhut for the several photo labs. Both the 12th RITS and 460th TRW were tied into local systems served by 250 gallons-per-minute-pumps. (The labs lacked water meters.) Although the January-May dry season curtailed watering lawns and washing trucks at Tan Son Nhut, it did not affect the labs, which had one of the highest water priorities on the base. Water wastes went into the open sewer ditches criss-crossing the base and joined the water from the base septic tanks.[18/]

Unlike the PPIF, the recce tech used duplicate positives for readouts on in-country IPIRs. An original negative required white gloves, extreme care to avoid scratches, and could not be cut. Further, the squadron felt a duplicate positive permitted more accurate interpretation readouts and this was especially desirable to the recce tech since out-country film was of primary interest to the Air Force. The recce tech also did SUPIRs for out-country film with a seven-day suspense. The squadron operations officer estimated that by the end of 1968, the photo interpreters spent 30 percent of their time on in-country IPIRs, 40 percent on out-country IPIRs, and 30 percent on out-country SUPIRs. A very detailed analysis of out-country film was provided the 7AF Commander at the 12th RITS.

The 45th PPIF at Phu Cat became operational in September 1967 in half a WS-430 complex, and in 1968 had an authorization of 35 men. Periodically, proposals were staffed out of DO to deploy the RF-101s to Phu Cat. Early

in 1968, the Army 45th Military Intelligence Detachment moved to Phu Cat at the MIBARS there, in expectation of large amounts of film being processed at the base.[19/] Production, however, never reached such levels and the detachment moved to Phu Bai.

The PPIF at Phu Cat was there to facilitate the turnaround of Tan Son Nhut based aircraft, so they would have 35 minutes more time over target in I Corps on each mission out of that base. There was some question of how much time the positioning of the PPIF saved in distributing film to I Corps and II Corps. According to one 7AF document, the Phu Cat location cut as much as 18 hours off delivery.[20/] Yet, in most cases the processed film left Phu Cat on the couriers coming out of Tan Son Nhut. The twice-daily T-39 courier flights left Tan Son Nhut at 0100 and 0800 hours and arrived at Phu Cat at 0205 and 0945 hours. In theory, only if film became ready for travel during those hours when the T-39 was between Tan Son Nhut and Phu Cat would there be a faster delivery. On the debit side, there were four flights daily between Tan Son Nhut and Da Nang and only two to Phu Cat. On the other hand, the turnaround capability had the decided advantage of permitting a morning mission in I Corps, plus 35 minutes on target and WX dispersal location time to recover at Phu Cat, and refuel and load film for an afternoon mission which recovered at Tan Son Nhut.

The 432d TRW was organized as outlined by the TAC RISE concept. This was strikingly apparent when comparing original versus duplicate film production of the PPIFs and the recce tech for the last half of 1968:[21/]

	432d RTS	11th/14th PPIF
Original Negative	557,370	4,513,858
Duplicate Film	8,614,092	704,000
Total	9,171,462	5,217,858

The wing's two PPIFs occupied WS-430B complexes to process IPIRs and forward the original negatives to the recce tech. The 432d Recce Tech performed the SUPIRs, processed the required duplicate film, and made distributions. Interestingly enough, the wing had no photo officer directing and coordinating the wing's three photo labs. The PPIFs (as parts of the tactical squadrons), the recce tech, and the wing's director of intelligence were all separately and directly assigned to the wing DO.

The two PPIFs were organized so each of the WS-430 complexes could be broken into halves for two separate deployments. The 11th PPIF ran a test in December 1968 on one expandable van, taking 90 minutes to disassemble and 60 minutes to reassemble it.[22/] The PPIFs required extra space for administration and storage. For instance, the 14th PPIF had 25 "B" vans, one "A" van, and two Jamesways. One of the latter served as the main photo interpetation work area. The extra working space was needed because the WS-430B provided four PI stations and the PPIF had eight such stations.[23/]

According to a message of concern to the 432d TRW and 13AF, in December 1968, water was a major problem at Udorn. However, the officers in charge of the photo labs there considered the water supply for their labs as adequate. They of course had a high priority. Auxiliary reserves were drawn from nearby "klongs"--Thai ditches filled with surface water--and used if the base

water pressure dropped too low. Estimated consumption in the absence of water meters ran 4,370 gallons per day for each PPIF and 49,060 gallons per day for the recce tech. Much of the latter volume went to the eight processing Versamats without water conservation kits. The six Versamats at each PPIF and four at the recce tech used an estimated 720 gallons per day per machine compared to 5,760 gallons per day per machine for the eight unmodified units. Photo lab liquid wastes flowed directly into the local drainage ditches, which were already polluted. Chemical testing of the klong water showed no noticeable added contamination. The oxygen content actually improved after the photo lab wastes were added.[24/]

Prior to March 1968, the wing photo resources had been concentrated in the recce tech. In that month, the two PPIFs became operational. Each squadron took about 20 PIs from the recce tech, stripping the latter to only two PIs. For many months the recce tech could not produce many SUPIRs, though by the end of the year it was back to running a SUPIR on each mission.[25/]

Both PPIFs were authorized six officers and 85 airmen and both were fully manned at the end of 1968. The recce tech end-of-year status included 11 officers authorized and assigned and 150 airmen authorized and 117 actually assigned. There were ten PIs TDY to the recce tech. In late 1968, the recce tech had only 21 of its authorized 42 PIs, so 11 PIs were sent TDY for 90 days from other Thai bases. The PI manning situation fluctuated monthly, varying from fully manned to short-handed.[26/]

Wing policy of the 432d established nine hours from chock time for

completion of the SUPIR.[27] The latter would not be a cutoff time if quality were jeopardized. Seventh Air Force suspenses were 24 hours and seven days, respectively, for the IPIR and SUPIR. Wing policy also sought to have the original negative at the recce tech within six hours of aircraft chock time. The Operations Officer of the 14th PPIF made a rough estimate that 70 percent of the original negatives and 80-85 percent of the IPIRs met wing suspenses.[28]

Like the 460th Recce Tech, the 432d Recce Tech obtained its SUPIR from the duplicate positive, using the first duplicate positive made after the negative came from the PPIFs. On an average, nine items were found on each mission film, though these items might range from 15 miles of road to a small bridge. Also, on an average, a PI took about nine hours to complete the IPIR.[29] As the PIs were working off the first duplicate positive, the photo labs were processing the additional duplicates for the 12th RITS (Tan Son Nhut), 548th Recce Tech (Hickam), and elsewhere as required. SONNE rolls and select prints were also made. The original negative was then sent to the 13th Recce Tech (Clark). The recce tech usually waited about nine days before destroying the duplicate positive used for the SUPIR in case there were further duplication requests or questions on the SUPIR or IPIR. It was then destroyed.

In the opinion of the officers in charge of processing and interpreting 432d TRW film, the PPIFs and recce tech were not saturated during the last months of 1968, despite the mushrooming quantity of film processed. They felt that a saturation level had not been reached. The recce tech's highest production totaled 130,000 feet processed in one day and 44 missions SUPIRed

another. The latter was accomplished by 31 PIs. They further did not think quality had been degraded in meeting these heavy processing demands.[30]

PACAF demurred and cited a late November 1968 message from the 432d TRW requesting additional manning to help PIs working 72-hour work weeks to eliminate backlogs. However, as noted earlier, at that time the recce tech had only half its authorized PIs and TDY assistance from other Thai bases improved the situation.[31]

The 432d Recce Tech attempted to substantiate this subjective opinion by reviewing the 300 SUPIRs produced 1-15 January 1969. Units such as the 12th RITS and the 548th Recce Tech made supplemental reports on the 432d TRW film and sometimes corrected or supplemented the WRTS' SUPIRs. Based on such received amended readouts, the 12th RITS Recce Tech determined that on 300 missions, the WRTS made errors of commission or omission on seven, realizing 98 percent accuracy. However, according to the 12th RITS' records, only 30 of those 300 missions had items of intelligence as reported by the 432d Recce Tech, and those 30 missions produced 128 items of intelligence. As the system was designed, Continuing Photo Interpretation Reports (CPIRs) by the 12th RITS for 81 of the approximately 300 missions produced 240 additional items of intelligence. The number of intelligence items produced is in direct proportion to available PI time. The IPIRs produced time perishable information; SUPIRs produced expanded information but still were required ASAP; and CPIRs produced detailed readout correlated to all source information.[32]

~~Three comments seem pertinent. First, the 12th RITS was intended to provide the 7AF Commander with more detailed film interpretation than the recce~~

tech could provide. Second, the 432d Recce Tech was apparently not getting all the feedback available on its film. Third, this subject illustrates the relationship of responsiveness and how the reconnaissance portion of Reconnaissance-Intelligence shades into intelligence. (Quality is a major consideration not examined in detail in this report.)

In the TAC RISE concept, the tactical reconnaissance squadrons had their PPIFs; the reconnaissance wings, their recce techs; and the major commands, their command recce tech squadrons. The latter would provide "all-source intelligence of photographic, cartographic, intelligence research, targeting, and production of photographic, cartographic, and textual intelligence products". The major command in SEA was PACAF, located at Hickam AFB. TAC RISE provided the RITS, which would be deployable to handle surge and proliferation requirements such as 7AF experienced in SEA. As stated in the final TAC RISE report:[33/]

> *"...This organization would be separate from the wing organization and, in addition to providing mass printing and reproduction of imagery, would function as a sort of intelligence fusion facility to provide timely intelligence and target analysis for the combat commander. As such, it would receive intelligence inputs not only from aerial reconnaissance but also from all other theater sources such as POW interrogations, agent reports, ground patrols, etc."*

The manning problem of the 12th RITS was discussed in the first chapter in conjunction with the question of what function a recce tech played in support of ground troops if the PPIF did the IPIR and the MIBARS did the SUPIR. No consideration has been given to support of FWMAF which were not equipped with MIBARS equivalents. The question of roles and missions for the

12th RITS was even more complex, since the Vietnam war presented the first operational test of the RITS' concept. Judging by the volume of production--16.7 million feet in 1968--supporting both the Air Force out-country and the Army in-country, the role and mission of the RITs was at the heart of reconnaissance-intelligence in Air Force areas of responsibility such as Laos.

Clearly, missions of mass printing and intelligence fusion demand very sizable resources. Although this report does not explore that area at length, failure to activate the 12th PPIF had resulted in a shifting of some 15,000 feet of film per day to the 12th RITS, which was the workload responsibility of the TRW. Furthermore, the 7AF requested 99 additional personnel to augment the RITS' manning: 34/

> *"The photographic laboratory of the RITS must be operational 24 hours a day, seven days a week for precision photographic processing and select printing in support of Hq 7AF requirements and those for the directed and national programs. It must maintain an immediate reaction capability for all types of photographic requests in support of reconnaissance intelligence tasks levied by the Commander 7AF both as the Commander AFFOR and the MACV Deputy Commander for Air. These photographic requirements consist of black and white continuous processing and select printing, copying of selected mosaics and charts, color continuous processing and color select printing. This is the only color continuous processing and printing facility in SEA to support the Commander, AFFOR. The RITS is presently producing over one million feet of photographic materials a month, consisting of 760,000 feet of continuous rolls and 260,000 feet of select prints for special target materials, special reports and briefings, annotated prints and graphics to comply with requirements established by the 7AF Commander and the various elements of his staff."*

The RITS personnel worked long hours to accomplish these tasks. The May 1968 Monthly Operations Resume for the squadron said lab personnel worked a

minimum of 72 hours a week, and many worked 85-90 hours a week.[35/45] General McConnell recognized this situation when he authorized 150 more personnel for the RITS. The larger question, here, was just how pervasive should a RITS be in its operations?

Though the production expected of the RITS seemed to definitely overtax its facilities and especially its manpower, this was apparently not true of the other squadrons. From comments in the photo labs and from the few documents available, the situation was one of often heavy but not saturated production. Production of in-country film by the 460th Recce Tech actually dropped every month except one, from May to December 1968. The Thailand PPIFs and the recce tech personnel did not consider their labs saturated.

The final TAC RISE report emphasized the need for the Air Force to evaluate Army requirements and to take positive steps to discourage excessive film duplication. The attitude of 7AF at various levels was generally one of not presuming to judge whether Army requests were excessive. Seventh Air Force, through the TASE, however, was making a determined effort to get the requesters not to ask for prints unless an essential element of interest appeared on the film. Progress was being made. An area of excessive requests has already been mentioned in the case of 10 by 10-kilometer area requests. This problem lessened significantly when the monthly reconnaissance plan was placed on an "as required" basis.

Most Army requests required the MIBARS to receive a duplicate positive and a negative (the former for SUPIRs, the latter for making prints), because

the MIBARS did not have such a reproduction capability. Since 7AF chose to keep the in-country original negative, the negative to the MIBARS was a duplicate. The Army/Air Force agreement as stated in the TAC RISE report and Army Field Manual 30-20 tasked the Air Force with supplying one negative and two prints to the Army.[36 46/]

The ratio of original film versus duplicate film for the two reconnaissance wings was readily available (the 12th RITS is excluded):[37 47/]

	In-country (in millions of feet)	Out-country
Original Negative	12.7 (35%)	12.2 (34%)
Duplicate Film	23.4 (65%)	23.9 (66%)

Thus, for 1968 the Air Force made two feet of duplicate film for every foot of original film, for both in- and out-country film. This was apparently true whether for the Army or the Air Force. To this must be added the sizable duplicate footage of the 12th RITS.

Distribution

In early and mid-1968, the Army and Marine complaints on the very poor Air Force support of reconnaissance requests came fast and furious. In May, I DASC and DASC Victor directors--both Air Force colonels--sent strongly worded letters reporting non-receipt or late receipt of Air Force film.[38 48/] A study conducted by the Army in Provisional Corps, Vietnam (PCV) from 2 April to 28 May 1968 showed that of 110 reconnaissance requests, only 25 reportedly arrived on time:[39 49/]

Received on time	25
Received after DNLV	31
Accomplished but not received	7
Not flown due to weather	36
Not flown, reasons unknown	9
Incomplete coverage	2
Total Requests	110

A possible explanation was that the Single Manager concept, only begun in March, was still in an adjustment phase two months later.

In a July time-lapse study in PCV, a comparison of receipt times at the Phu Bai MIBARS of 667 missions flown by Air Force and Marine aircraft was favorable to the Marines. The actual quantities meant little, since it was not known just what actions had been completed in the given times. Did they, for instance, include film processing time, interpretation time, or just courier distribution time? But it might have some bearing on the question of reconnaissance squadron deployments to know that the Phu Bai MIBARS north of Da Nang received film products from the 1st Marine Air Wing (121 missions) in 1.23 days and from the 460th TRW (546 missions) in 2.43 days. 40 ~~50~~/

However, the most comprehensive analysis was made by the Army from 15 June to 15 September 1968 on 1,438 requests. All units were directed to keep a standardized air request log of each request and, to get a true measure of responsiveness, not to extend the DNLVs. 41 ~~51~~/ The results by priority from request to receipt were compared to earlier data presumed to date from late

1967 and early 1968:[42]

Priority	Late 1967 and Early 1968	15 June-15 September
I	1.5 days	1.7 days
II	5.9	3.8
III	10.8	7.0
IV	13.9	9.7

This USARV report revealed "an overall improvement in Tactical Air Reconnaissance responsiveness...." The report also found that 78 percent of priority IIIs were completed on time, and that weather or artillery fire was the main cause of delays in completing priority Is and IIs. (But one 7AF officer working in reconnaissance at this time said that 95 percent of the priority IIIs had DNLVs longer than seven days and were "tailored" to past Air Force performances.)[43] Another significant finding of the USARV report was that "procedures used for fulfilling priority I and II requests appear to be as responsive as possible to the Army's requirements."

The report also noted "subjective comments" by commanders saying OV-1s were more responsive than Air Force reconnaissance. In another report, III MAF noted that the Army 245th Surveillance Airplane Company (O-1s) used the MACV IV priority, and it met 90 percent of its DNLVs and delivered priority III prints in 24 hours. The organic Army/Marine surveillance aircraft were "more responsive" than Air Force reconnaissance planes at their type of work and this raises a significant point. The policy of using organic aircraft implies that when you do not use organic aircraft, it is because they do not

have the capability to accomplish the objective. The III MAF report acknowledged this:[44][54]

> *"Responsiveness of the surveillance airplane company to IR missions is better than that of tactical reconnaissance A/C. The OV-1C, however, is limited to route reconnaissance and small area coverage."*

In short, the Army requested reconnaissance when it could not do the job the Army way.

In early 1969, an inquiry for the Army Chief of Staff on time-lapse data revealed that the air request logs had fallen into disuse. Since this was the most comprehensive feedback anyone had on time responsiveness, the field units were again told to keep logs. Seventh Air Force had no direct way to monitor total times, though a classified film receipt was sent with each film package in the hope the requesters would record the relevant times and return it to the 460th Recce Tech. The response was ragged. Thus, in January 1969, 7AF DO asked USARV for monthly data from the air request logs to establish response times.[45][55]

For out-country responsiveness, the 7AF study of August 1968 on "Photo Reconnaissance Support to Tactical Fighter Wings" provided statistics. Based on 643 sorties by the 432d TRW and 177 by the 460th TRW, all in North Vietnam in May and June 1968, it was possible to determine the time it took to distribute select prints and IPIRs to three wings in Thailand and one in South Vietnam. For statistical purposes, the countdown began at reconnaissance aircraft time over target (TOT). The 432d TRW, being closer to North Vietnam,

gained a mean time over the 460th TRW of 38 minutes from TOT to delivery of the film to the photo labs. The results show the 460th TRW was slower than the 432d TRW: 46~~56~~/

From TOT to...(in hours)	432d TRW	460th TRW
IPIR Production Average	7:43	17:49
95% IPIR Receipt at Wing Communication Centers	38 - 40	41 - 42
Select Print Production Average	15:12	35:24
Hot Item Photo Production Average	None	21:00
95% Select Print Courier Drop at Bases	39 - 51	59 - 64

The analysis determined that the 432d TRW gained approximately four hours on the 460th TRW by using the original negative for photo interpretation rather than the duplicate positive. During the three-month period of the study, 87 percent of the 460th TRW prints were Hot Item Photos and, since these were produced first, the production of select prints was delayed 14 hours. The 432d TRW produced no Hot Item Photos during this period.

As a sidelight, the 432d TRW took 7:43 hours to prepare a copy of the IPIR and another 8:53 hours to get it to the local base message center for transmission. In January 1969, the Operations Officer of the 14th PPIF said at one time, the PPIF waited to collect a sizable number of IPIRs before taking them to the message center and this delayed transmission up to ten hours. By January, the IPIRs were sent individually to the center and were reputedly delayed only an average of 30 minutes before being sent over

the teletype. This again illustrates the entangling time delays that can creep into a distribution system.[47][57]

The production and distribution of the 432d TRW would seem to be an almost ideal test of TAC RISE under favorable conditions. The wing was organized according to TAC RISE and had an Air Force T-39 courier link with each user. Under these conditions, it took more than one and one half days on the average from TOT to get an IPIR to the fighter wing message center and from one and one-half to two days from TOT to deliver the select prints to the user's base. (NOTE: During the three-month period, 87 percent of the 460th TRW prints were Hot Item Photos and, since these were produced first, the production of select prints was delayed 14 hours. The 432d TRW produced no Hot Item Photos during this period.)

Although in this 7AF study, the time-lapse period began from the TOT, the steps could be enumerated from request to receipt as follows:

- Request: Requester initiation to TASE validation.
- Flying Time: 7AF receipt of request to completed mission chock time.
- Processing: Download of film to packaging.
- Distribution: Wrapped packages to requester receipt.

Flying time might significantly improve if reconnaissance squadrons deployed to the corps, and the DASCs assumed at least partial fragging. Concerned efforts were made by 7AF to cut operation times of the other three steps.

The major failing of the processing step in 1968 was in getting the IPIR

out to the requester. In early January, DO, 7AF, received a telephone call from III MAF reporting receipt at that time of 500 hard copy IPIRs. The caller said it was an Air Force responsibility to package and address the IPIRs. Investigation by 7AF soon revealed the entire IPIR distribution system had deteriorated into a hit or miss affair. Since the MACV teletype circuit being used for IPIRs had only six terminals, nearly all requesters received their IPIRs by hand copy. The receiver list was so out of date that some IPIR addressees had already left Vietnam. The direct solution was to use the Air Force Common Net Teletype (operational immediate) after a test revealed the 70 IPIR addressees could receive by this net. In converting the IPIR message to teletype, the narrative was reduced from two pages to two paragraphs. After the revision, only four hard copies were made, all for distribution to 7AF/MACV units at Tan Son Nhut. This experience with IPIR distribution illustrates again the lack of feedback and close supervision in distributing the photo products, because of the grey area where the Air Force and Army distribution systems should have meshed. As a result, the dissemination of essential information for which the reconnaissance mission was flown took days, when only hours were needed.[48~~58~~/]

Something of the same problem existed in the distribution of the film. In the courier system in South Vietnam, the film packages went to the MIBARS via Air Force aircraft, and then the MIBARS were to make further distribution within the corps. That is, the Air Force individually wrapped and addressed each requester's film products, but the MIBARS was to deliver them. However, the MIBARS did not have nearly the resources to rapidly handle the material.

Therefore, in III Corps, the Air Force provided twice-a-day courier service to all division headquarters. But in the other corps, where the Air Force couriers supposedly linked with the MIBARS local systems, there was some confusion concerning Air Force and Army tasked and informal responsibilities. The TAC RISE final report stated:[49 59]

> *"Tactical reconnaissance wings and reconnaissance task forces will have an integral air delivery capability to provide division, corps, and field army headquarters with required graphic products, and to provide designated priority items to Army units below division level."*

The Air Force courier system in SEA used T-39s, U-3Bs, and U-10s. Twice daily, T-39 flights left Tan Son Nhut for the Thai bases, and two others flew circuits within South Vietnam. Aircraft making all four trips landed at Da Nang at 0255, 1120, 1455, and 2010 hours. There were three daily U-3B flights between Tan Son Nhut and Binh Thuy in the Delta, though unfortunately the IV Corps MIBARS worked at nearby Can Tho, and sometimes the enemy disrupted travel between the bases. In III Corps, a Special Activities Squadron flew two helicopter flights directly to division headquarters as required daily. From Nakhon Phanom, an OV-10 twice-daily visited the four wing bases and its personnel distributed COMMANDO HUNT film. Getting the film to the MIBARS was an Air Force responsibility; getting it to division headquarters in III Corps was an extra effort to help the Army.[50 60]

Ironically, the manning of the PPIFs and recce techs included no personnel for packaging and handling the film products that went on the "integral air delivery capability". The 460th Recce Tech had nine men and the 14th PPIF

had four working in a hut devoted to wrapping and addressing film. In December 1968, the 460th TRW placed 12,982 items weighing more than 94,000 pounds on the courier system.[51] In Thailand, the two PPIFs' 13 personnel worked full-time in the more inclusive area of production control: maintaining registers, controlling processing routing, making pickup and delivery, and packaging for distribution.[52]

This courier network reduced the distribution times. According to one Air Force estimate, daily service helped reduce elapse times for priority IIIs from 7-10 days to 3 days, and priority IIs from 3-5 days to 36 hours.[53] By mid-February 1969, there were no recent time-elapse studies. Seventh Air Force has requested USARV to forward data for analysis from the reinstituted time logs and, MACV is to encourage film recipients to complete the Photo Product Invoices and return them to the 460th TRW for statistical analysis.[54]

In the absence of recent time-elapse data, more subjective evidence must be considered. Several time-saving changes have been mentioned in this report: phoning the requests to the TASE rather than relying upon teletype; allowing the 460th TRW to learn the targets in advance of the frag; authorizing III MAF to pass some target information directly to the 1st Marine Air Wing; disseminating IPIRs over the Air Force Common Net; encouraging the Army to reduce area requests and increase options permitted the Air Force on equipment and photo scale (to increase the chances of successful mission completion); augmenting the daily courier schedule (such as increasing the trips to Da Nang from one to four daily); and inaugurating two flights daily around III Corps and other special flights in the other corps. These changes markedly tightened

Air Force response times.

In-country Army requests in 1968 for Air Force reconnaissance, which reached a low around mid-February, and then took a sharp jump in May through July due to several administrative factors, rose steadily from August through December.[55] Also, according to a message received in late December 1968 from MACV, commenting on their completed MACV study of reconnaissance responsiveness: "Timeliness of aerial photography was also identified as an item of significant improvement since August 1968...."[56] By one TASE estimate, the Air Force in early 1969 was meeting 92 percent of all priority DNLVs.[57]

Along with this general improvement, came an increasing awareness that "responsiveness" was the responsibility of the Army as well as the Air Force. Coordination of requests remained within Army channels to the level of the TASE. And, once the Air Force delivered the film to the MIBARS in each corps, the MIBARS was responsible for distributing it to the requesters. According to a TASE briefing given at the MACV Monthly Reconnaissance Plan Conference in February 1969, the time from initiation of request to validation by the TASE was taking an average of 36 hours. The Air Force usually flew priority IIIs, the day of TASE validation or the next day. Film and IPIR processing took an estimated 16 hours and courier delivery another 8-10 hours. However, distribution by MIBARS to field units took about 58 hours.[58] It should be clear, then, that photo reconnaissance timeliness had improved significantly by early 1969, so far as the Air Force was concerned. Decreases in elapse time from initial request to receipt would still depend upon the Army, as well as the Air Force streamlining their operations, or on the Air Force further assuming functions such as all film distribution to field units.

FOOTNOTES

CHAPTER I

1. (C) Working Paper, Lt Col Alfred W. Matthews, Ch, P&P Div, USARV Hq, subj: Tactical Air Reconnaissance Support to USARV, Mid-Jan 69.

2. Ibid.

3. (U) Ltr, Maj Charles A. Byrd, Asst Adj Gen, USARV, subj: Tactical Air Reconnaissance Support to USARV, 31 May 68.

4. (S/AFEO) Msg, CINCPACAF to 7AF (Gen Ryan to Gen Momyer), "Tac Recon Support of Other Services in SEA," 29 May 68.

5. (S/AFEO) Msg, 7AF to CINCPACAF (Gen Momyer to Gen Ryan), "TAC Recon Support of Other Services in SEA", 8 Jun 68.

6. Ibid.

7. (S/AFEO) End of Tour Rprt, Lt Col James E. Beitzel, Ch, DOCRI, 7AF, 1 Sep 67-12 Aug 68, 9 Aug 68.

8. (S) Rprt, "Final Report of Project Tactical Reconnaissance Intelligence System Enhancement (Project TAC RISE)", Hq USAF, 6 Jun 66.

9. (S) Ltr with Atch, Col Walter J. Brown, DCS/Ops, PACAF to DOTEC, "Project CHECO Rprt, "Recon Photo Production in SEA", 10 Mar 69;
(S) Atch, Talking Paper, TAC RISE, SEA.

10. (U) Ltr, Gen J. P. McConnell, CSAF, to AAC et al, subj: Tactical Air Reconnaissance-Intelligence, 13 Jul 66.

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20. (S/AFEO) Ibid; Memo, Brig Gen George J. Keegan, Jr., DI, 7AF, to DO and C, 7AF, undated.

21. (S/AFEO) Form 4, Col Frank H. Grossman, Ch, DOCR, 7AF, "Restructuring In-Country Reconnaissance", 5 Aug 68.

22. (C) Interview, Lt Col Bert E. Dowdy, Ch, DOCRI, 7AF, 8 Feb 69.

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24. (S) Msg, CG, III MAF to COMUSMACV, subj: Evaluation of Single Management for Period 270600H Jun to 260600H Jul 68," 29 Jul 68.

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31. (C) Msg, CINCPACAF to 7AF, "UMD Change Request--12th RITS", 10 Oct 68.

32. (C) General Keegan Coordination Notes, 3 Mar 69.

33. (C) Ltr, Maj Gen Ernest C. Hardin, Jr., DO, PACAF to Maj Gen Gordon Blood, DO, 7AF, subj: Intelligence Centralization and TAC RISE, 2 Jan 69.

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35. (S) Ltr, Maj Gen Milton B. Adams, C/S, PACAF to C/S, 7AF, subj: UDL Change Request--12th RITS, 28 Jan 69.

36. (C) General Keegan Coordination Notes, 3 Mar 69.

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CHAPTER II

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21. (C) Appendix I.

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23. (C) Interview, Capt Lynn Moyer, OIC, 14th PPIF, 24 Jan 69.

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46. (C) Rprt, Maj Niles F. Smith, DOA, 7AF, "Photo Reconnaissance Support to Tactical Fighter Wings", 1 Aug 68, pp iv-vii.

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48. (C) Interview, Lt Col Michael Stouffor, Recce Duty Off, DOCRI, 7AF, 3 Feb 69;
(U) Ltr, Col T. L. Keal, Comdr, 460th RTS to DCO, 460th TRW, subj: IPIR Distribution, 28 Jan 69;
(C) Ltr, Capt James R. Lukeman, OIC, 16th PPIF to TACC, 7AF, subj: Revision of IPIR Format, 24 Jan 69.

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54. (U) Ltr, Col Frank H. Grossman, Ch, DOCR, 7AF to MACV J211, subj: Aerial Reconnaissance, 14 Jan 69.

55. (S/NF) Command Status Rprt, 7AF, Dec 68.

56. (C) Msg, COMUSMACV to 7AF, et al, "Aerial Reconnaissance," 28 Dec 68.

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APPENDIX I

RECONNAISSANCE PHOTO PRODUCTION IN SEA - 1968

1. 460th RTS (Tan Son Nhut AB) North Vietnam, Laos, and Cambodia

	Jan	Feb	Mar	Apr	May	Jun	
ON	412,110	470,185	628,332	204,718	252,062	182,875	
D+	780,808	634,455	1,040,115	418,810	601,910	638,675	
D-	182,629	165,048	302,571	36,625	33,980	143,420	
So	258,450	158,910	167,388	115,935	184,125	259,760	
Pr	229,373	29,983	230,708	6,598	14,962	18,062	
T	1,863,370	1,458,581	2,369,114	772,686	1,087,039	1,242,792	
	Jul	Aug	Sep	Oct	Nov	Dec	
ON	162,652	133,830	154,477	170,932	128,584	201,439	3,102,196
D+	377,652	348,205	357,715	474,231	372,042	561,560	6,606,178
D-	33,276	4,070	10,150	14,211	4,409	8,941	929,330
So	102,745	71,835	98,815	206,334	214,808	292,092	2,131,197
Pr	15,485	7,932	12,038	12,499	1,513	22,022	601,175
T	691,810	565,872	633,195	878,207	721,356	1,086,054	13,370,076

460th RTS South Vietnam

	Jan	Feb	Mar	Apr	May	Jun	
ON	429,513	556,539	723,357	695,539	828,660	787,982	
D+	368,762	432,791	358,292	635,769	712,747	409,411	
D-	268,933	275,193	310,570	383,188	447,752	256,297	
So	272,813	229,780	332,355	448,502	523,477	267,673	
T	1,340,021	1,494,303	1,724,574	2,162,998	2,512,636	1,721,363	
	Jul	Aug	Sep	Oct	Nov	Dec	
ON	0	590	30,245	209,631	208,965	195,349	4,666,370
D+	592,960	415,160	435,900	309,808	269,825	264,972	5,206,397
D-	172,870	167,670	180,675	119,731	90,777	58,783	2,732,439
So	267,825	204,175	255,795	218,898	181,120	179,230	3,381,643
Pr	5,588	6,679	10,583	4,630	1,633	6,094	35,207
T	1,039,243	794,274	913,198	862,698	752,320	704,428	16,022,056

2. 16th PPIF (Tan Son Nhut)

	Jan	Feb	Mar	Apr	May	Jun
ON	293,710	414,668	545,443	501,250	615,215	624,571
D+	287,112	352,249	236,598	486,414	547,737	278,400
D-	225,595	234,853	234,171	293,899	340,275	163,284
So	222,791	177,122	252,660	344,891	437,901	184,893
	1,029,208	1,178,892	1,268,872	1,626,454	1,941,128	1,251,148

	Jul	Aug	Sep	Oct	Nov	Dec	
ON	723,772	674,249	631,519	552,146	477,345	540,708	6,594,596
D+	243,813	194,469	146,133	329,630	293,477	377,565	3,773,597
D-	189,824	123,717	124,955	215,317	218,314	251,093	2,615,297
So	161,602	77,698	126,309	263,582	273,188	340,009	2,862,646
T	1,319,011	1,070,133	1,028,916	1,360,675	1,262,324	1,509,375	15,846,136

3. 45th PPIF (Phu Cat)

	Jan	Feb	Mar	Apr	May	Jun	
ON	93,526	96,790	133,166	148,242	164,861	124,418	
D+	43,388	40,340	81,604	108,296	165,010	131,011	
D-	43,388	40,340	76,399	89,289	107,477	93,903	
So	49,022	52,658	79,695	103,611	85,570	82,780	
Pr	670	0	0	0	0	0	
T	229,994	230,128	370,864	449,438	522,918	432,112	

	Jul	Aug	Sep	Oct	Nov	Dec	
ON	143,125	148,036	141,972	77,504	74,096	98,837	1,444,573
D+	138,820	151,745	131,523	94,392	96,179	116,255	1,298,563
D-	88,050	89,355	66,746	46,037	44,681	55,981	841,646
So	62,730	13,508	44,388	40,093	38,442	52,809	705,306
Pr	200	0	0	620	0	30	1,520
T	432,925	402,644	384,629	258,646	253,398	323,912	4,291,608

4. 432d RTS (Udorn)

	Jan	Feb	Mar	Apr	May	Jun	
ON	668,857	609,603	556,515	182,165	112,428	68,171	
D+/D-	285,528	264,366	428,653	587,668	830,748	547,813	
So/Pr	9,534	16,211	17,643	523,100	449,276	182,206	
T	963,919	890,180	1,002,811	1,292,933	1,392,452	798,190	

	Jul	Aug	Sep	Oct	Nov	Dec	
ON	94,716	55,105	70,018	88,033	108,482	141,016	2,755,109
D+/D-	924,067	850,987	580,596	676,203	1,131,786	1,477,548	8,585,963
So/Pr	317,352	239,929	339,321	445,889	664,517	965,897	4,170,875
	1,336,135	1,146,021	989,935	1,210,125	1,904,785	2,584,461	15,511,947

5. 11th PPIF (Udorn)

		Apr	May	Jun
ON		274,592	382,132	301,566
D+		30,025	32,853	19,100
Pr	Not in operation Jan-Mar	10,935	11,509	12,496
T		315,552	426,494	333,162

	Jul	Aug	Sep	Oct	Nov	Dec	
ON	415,469	392,492	323,775	342,633	293,200	317,133	3,042,992
D+	26,691	20,440	74,530	102,550	52,758	48,529	407,476
Pr	24,304	27,115	18,982	33,149	29,993	25,589	194,072
T	466,464	440,047	417,287	478,332	375,951	391,251	3,644,540

6. 14th PPIF (Udorn)

				Apr	May	Jun	
ON				250,000*	316,788	283,276	
D+	Not in operation Jan-Mar			0	0	0	
Pr	Apr not available			4,000	8,772	4,039	
T				254,000*	325,000	287,315	

	Jul	Aug	Sep	Oct	Nov	Dec	
ON	310,735	356,421	485,929	487,033	417,484	371,554	3,279,220
D+	0	0	45,167	78,377	7,478	3,275	134,297
Pr	7,471	11,513	8,563	21,579	17,896	18,051	101,884
T	318,206	367,934	539,659	586,989	442,858	392,880	3,515,401*

7. 12th RITS (Tan Son Nhut)

	Jan	Feb	Mar	Apr	May	Jun
ON	409,470	470,185	628,339	406,500	513,130	502,985
D+	771,108	630,515	1,040,115	270,921	238,767	245,536
D-	181,629	165,048	302,571	145,256	83,608	138,786
So	263,450	158,910	167,388	64,346	64,932	75,875
Pr	229,373	299,983	230,708	262,497	235,835	267,911
T	1,855,030	1,724,641	2,369,121	1,149,520	1,136,272	1,231,093

	Jul	Aug	Sep	Oct	Nov	Dec	
ON	451,484	456,711	401,775	476,593	464,419	583,827	5,765,418
D+	244,503	388,722	366,180	308,553	310,043	311,413	5,126,376
D-	120,537	113,827	133,260	147,990	151,615	64,969	1,749,096
So	84,770	78,840	89,460	71,970	38,752	28,937	1,187,630
Pr	257,062	364,382	183,389	174,356	175,012	164,364	2,844,872
T	1,158,356	1,402,482	1,174,064	1,179,462	1,139,841	1,153,510	16,673,392

* Production figures for April were not available at the PPIF, the 14th TRS, or 7AF. Totals shown here are arbitrary estimates based on trends in 11th PPIF and 14th PPIF.

SOURCE: In all instances except the 45th PPIF, statistics were taken from unit's own records. The 460th Recce Tech supplied the 45th PPIF totals. For Apr 68, the 14th PPIF totals were arbitrary estimates. Cumulative totals do not agree with 7AF totals as kept by DITM, 7AF.

UNIT ASG

APPENDIX II

~~CONFIDENTIAL~~ (When Completed)

TGT NO

TACTICAL AIR RECONNAISSANCE AND AERIAL BATTLEFIELD SURVEILLANCE REQUEST

See instructions on reverse side before filling out this form

TASE AND TACC DATA

DATE/TIME RECEIVED TACC	FRAG O NO
MISSION RESULTS	PRIOR COV CK
	BORDER CK
	APPROVAL

REQUEST DATA

TGT NO	REQ NO	MSN NO
1. REQUESTER		TEL NO
2. TYPE OF RECONNAISSANCE		
3. SCALE		
4. TARGET DESCRIPTION AND COORDINATES		

5. EEI OR RESULTS DESIRED

	A. TO LOCATE ENEMY ENCAMPMENT AREA		F. FOR BASE AREA STUDY/UPDATE
	B. TO DETERMINE ENEMY TRAIL ACTIVITY		G. FOR ROUTE RECONNAISSANCE
	C. TO LOCATE ENEMY ROCKET/MORTAR POSITIONS		H. TO LOCATE/CONFIRM ASSEMBLY AREAS
	D. TO LOCATE STORAGE AREA/AMMO DUMP		I. FOR BOMB DAMAGE ASSESSMENT
	E. TO LOCATE POSSIBLE AMBUSH SITES		J. FOR RECONNAISSANCE OF LANDING ZONES
	K. TO LOCATE ENEMY DEFENSIVE POSITIONS, FOXHOLES, BUNKERS, GUN EMPLACEMENTS		
	L. OTHER		

6. IMAGERY DESIRED

NO OF SETS		DELIVER TO (Complete Address)	NO OF SETS		DELIVER TO (Complete Address)
PRINTS	PLOTS		DIA POS	DUP NEG	

7. REPORTS REQUIRED

	A. HOT REPORT INFRARED			D. SUPIR: BY WHOM	
	B. IPIR TO:			E. OTHER	TYPE
	C. IN-FLIGHT REPORT				BY WHOM
	FREQUENCY	CALL SIGN			

8. PRIORITY	9. TOT	10 DNLV

11. PRIOR COVERAGE ACCEPTABLE ☐ YES ☐ NO ☐ NO DAYS PRIOR

12. REMARKS

MACV FORM 248-R 15 Dec 67 Previous editions are obsolete

(When Completed) ~~CONFIDENTIAL~~

INSTRUCTIONS FOR COMPLETING TACTICAL AIR RECONNAISSANCE/AERIAL BATTLEFIELD SURVEILLANCE REQUEST

The upper fourth of the form is provided to facilitate internal processing by J2 Air (TASE) and TACC.

TARGET NO AND MISSION NO - 7th AF TACC will assign target numbers and mission numbers to requests to be flown by AF aircraft. Target numbers and mission numbers for requests accomplished by Army aircraft will be assigned by the flying unit. MACV J2 Air TASE will notify requesting units of the target number assigned to their request by daily distribution of the AF Frag Order.

REQUEST NO - Requests will be numbered consecutively by calendar year utilizing the assigned block of numbers. Units not assigned a block of numbers will request an allocation from the MACV J2 Air Branch. Units which exhaust the assigned block of numbers will start over again with the lowest number, suffixing the request number with the letters of the alphabet. For example: Assume IV Corps has been assigned numbers 1-149. The 150th request submitted by IV Corps would be designated number 1a.

ITEM 1 - REQUESTER - Enter requesting unit, name of requester, and telephone number.

ITEM 2 - TYPE OF RECONNAISSANCE - Enter type of sensor requested (SLAR, INFRARED, PHOTO, NIGHT PHOTO, VISUAL). If photographs are requested, enter desired camera position, whether stereo is required, and percent (%) of cloud cover acceptable. The selection of a specific camera position limits the flying unit to this position only. Due to several considerations, primarily weather, the demand for a specific camera position usually impedes imagery collection in SEA to the extent that no coverage is obtained by the requester in time to develop useful intelligence. Therefore, it is best to add the permissive phrase "OR BEST POSSIBLE" to the desired camera position, thus allowing the flying unit to attempt the desired camera position and also to use alternate positions which may be more effective at Time Over Target (TOT), or to meet a Date No Longer Valid (DNLV).

ITEM 3 - SCALE - Generally, the required scale is determined by the purpose for which the imagery will be used and the Essential Elements of Information (EEI) to be obtained. To specify a single scale restricts the flying unit to obtain this single scale. Therefore, unless there is an absolute reason for a specific scale, a desired scale for tactical interpretation. Desired scales should be given as:

1:3000 or larger	1:6000 - 1:10,000	smaller than 1:20,000
1:3000 - 1:6000	1:10,000 - 1:20,000	

ITEM 4 - TARGET DESCRIPTION AND COORDINATES - Describe target to include special target identification features, UTM grid coordinates obtained from the 1:250,000 Joint Operations Graphic Chart and UTM grid zone designator.

ITEM 5 - ESSENTIAL ELEMENTS OF INFORMATION (EEI) OR RESULTS DESIRED - Indicate EEI or results desired by marking either one or several of the sub-headings. Specific EEI should be entered under sub-heading L and continued in Item 12 if necessary. Exact and detailed EEI are of great importance to both the flying unit and the imagery interpreters who subsequently interpret the product. Generalized statements should be avoidsd such as: Locate VC activity.

ITEM 6 - IMAGERY DESIRED - Indicate the number of prints and mission plots desired and to whom they should be delivered. If diapositives and duplicate negatives are desired, indicate the number of sets and to whom they should be delivered.

ITEM 7 - REPORTS REQUIRED - Indicate reports requested (over and above the standard distribution) and who is to receive the reports.

ITEM 8 - PRIORITY - Indicate priority assigned in accordance with instructions contained in MACV Dir 95-11.

ITEM 9 - TIME OVER TARGET - Unless a specific requirement exists for flying the mission at a given time, maximum latitude should be allowed the flying unit. For example: TOT for a Photo Mission may be ASAP and for an Infrared Mission it might be requested as 191800-200600 Nov.

ITEM 10 - DATE NO LONGER VALID (DNLV) - Enter the latest date for which the request will still be of value to the requester. This date establishes when the requester desires to have the Essential Elements of Information (EEI) answered and/or imagery in his possession. Its lead time should be in concept with the priority requested in Item 8.

ITEM 11 - PRIOR COVERAGE ACCEPTABLE - Indicate if prior coverage is acceptable and state how recent the coverage must be to meet the requester's requirement, expressed in number of days.

ITEM 12 - REMARKS - Enter any special instructions or information which will facilitate the accomplishment of the request. Some considerations are: special safety, procedures coordination affected, flak suppression, contact procedures, etc.

(WHEN COMPLETED THIS FORM WILL BE CLASSIFIED CONFIDENTIAL)

GLOSSARY

ALO	Air Liaison Officer
CICV	Combined Intelligence Center, Vietnam
CINCPACAF	Commander-in-Chief, Pacific Air Forces
COMUSMACV	Commander, U.S. Military Assistance Command, Vietnam
CONUS	Continental United States
CPIR	Continuing Photo Interpretation Report
CRTS	Command Reconnaissance Technical Squadron
CSAF	Chief of Staff, U.S. Air Force
CTZ	Corps Tactical Zone
DASC	Direct Air Support Center
DMZ	Demilitarized Zone
DNLV	Date No Longer of Value
FFV	Field Forces, Vietnam
FWMAF	Free World Military Assistance Forces
Gal	Gallon
IPIR	Immediate Photo Interpretation Report
IR	Intelligence Report
LOC	Line of Communication
MACV	Military Assistance Command, Vietnam
MAF	Marine Amphibious Force
MIBARS	Military Intelligence Battalion (Aerial Reconnaissance and Surveillance)
Min	Minute
PAD	Programmed Action Direction
PCV	Provincial Corps, Vietnam
PI	Photo Interpreter; Photo Interpretation
PPIF	Photo Processing and Interpretation Facility
PW	Prisoner of War
RITS	Reconnaissance Intelligence Technical Squadron
RTS	Reconnaissance Tactical Squadron

SEA	Southeast Asia
SIGINT	Significant Intelligence
SLAR	Side-Looking Airborne Radar
SUPIR	Supplemental Photo Interpretation Report
SVN	South Vietnam
TACC	Tactical Air Control Center
TACP	Tactical Air Control Party
TALO	Tactical Airlift Liaison Officer
TASE	Tactical Air Support Element
TOT	Time Over Target
TRS	Tactical Reconnaissance Squadron
TRW	Tactical Reconnaissance Wing
USARV	U.S. Army, Vietnam
VNAF	Vietnamese Air Force