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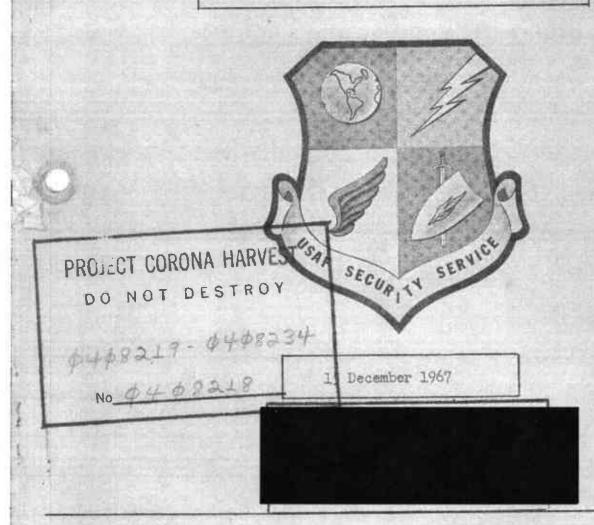
6994TH SECURITY SQUADRON

1 January 1967 - 30 June 1967

209: AU-D5 (USS-1)

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Tan Son Mhut AB, South Vietnam

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HISTORY

OF THE

6994th SECURITY SQUADRON

1 January - 30 June 1967

RCS: AU-D5 (USS-1)

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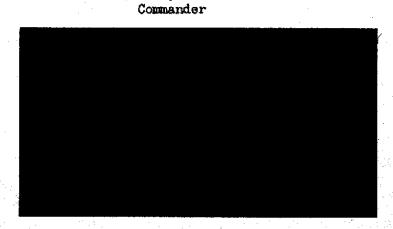
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FOREMORD

This history covers the operational activities of the 6994th Security Squadron during the reporting period of 1 January - 30 June 1967. The histories of the detachments are presented as appendices; however, in some instances the material contained in the basic document is all inclusive. This was necessary to provide the reader with a complete account of the subject/activity.

This history has been divided into four chapters: Chapter I - Mission and Organisation, Chapter II - Tasking and Collection, Chapter III - Processing and Reporting, and Chapter IV - Mission Accomplishment. The addition of Chapter IV is a deviation from the "Revised Format for USS-1 History," published by Hq USAFSS. This deviation was made to facilitate the portrayal of the unit's effectiveness in accomplishing its unique mission in direct support of the Vietnam conflict. Also included as an appendix is a brief history of the activities of the Airborne Radio Direction Finding Coordination Center (ACC).

This history was prepared primarily from files, interviews and project folders available at the unit. Many of the messages referenced as 6994th Security Squadron messages are quoting other correspondence to higher headquarters. Many of the activities reported were coordinated with local agencies (i.e., MACV, 7th Air Force, 509th Radio Research Group, etc.) in person by 6994th staff personnel and, consequently, may not be fully documented. This could not be avoided.

The research and writing was accomplished by Sgt Odom. The historian was mainly concerned with editing and style.

All suggestions and comments concerning this history should be directed to the Office of Information.

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CHRONOLOGY

Date	Event
Jan	Drill Press continues operations from Hue/Phu Bai Airfield.
Jan	Discussion Degins for establishing ARDF/Airborne Collection operations in Thailand.
Jan	Major difficulties were encountered in the coordinate converter digitizer in ARD-18 system.
Jan	Drill Press was directed into Tiger. Hound/Steel Tiger areas of Laos by 7th Air Force.
Jan	Magnetic tape recordings of target signals were forwarded to Sanders Associates.
15 Jan	Drill Press capability was reduced as aircraft 43-16254 deploys to Taiwan for IRAN.
Feb	MACV ARDP areas expanded to include coastal area of southern North Vietnam.
18 Feb	Aircraft 43-49679 destroyed in ground accident.
9 Mar	Aircraft 43-49201 lost to probable enemy action.
Mar	Action was instituted locally proposing deletion of A202XO authorizations and was disapproved by operations officer.
Apr	Project name "Phyllis Ann" was changed to "Compass Dart."
Apr	Four Compass Dart aircraft were transferred to Pleiku AB from Tan Son Nhut to balance resources.
Apr	PACAF approved increase in allocated airframe utilisation hours for Drill Press.

17 Apr 6994th Security Squadron celebrated its first anniversary. Action initiated to secure KY-8 equipment 21 Apr for Drill Press. 22 Apr Action was instituted to reduce use of ARDF air/ground frequencies by unauthorized subscribers. Jun Drill Press deployed one aircraft to Pleiku AB to support Tri-border area activities. Proposal instituted to relocate Detachment 2. Jun 21 Jun First aircraft scheduled for modification

2000/270 departs for Itazuke.

CHAPTER I - MISSION AND ORGANIZATION

Mission

The specific mission of the 6994th Security Squadron was to perform the United States Air Force Security Service (USAFSS) role in the Airborne Radio Direction Finding (ARDF) program in South Vietnam, laos, and the adjacent coastal areas of South Vietnam, north to approximately 20 nautical miles north of the DMZ. The unit accomplished its mission through the resources of projects Compass Dart (formerly Phyllis Ann) and Drill Press. Through these facilities the unit provided intelligence support of combat operations of the Vietnamese conflict by:

- (1) accomplishing close tactical support for major offensive operations through establishing the location and identity of enemy forces and passing the information to Direct Support Units (DSU's) collocated with combat elements,
- (2) providing ARDF of enemy transmitters in support of SIGINT activities of United States Intelligence units, and
- (3) augmentation of SIGINT intercept facilities through material collected by the ARDF acquisition equipment and the Drill Press airborne collection platforms.

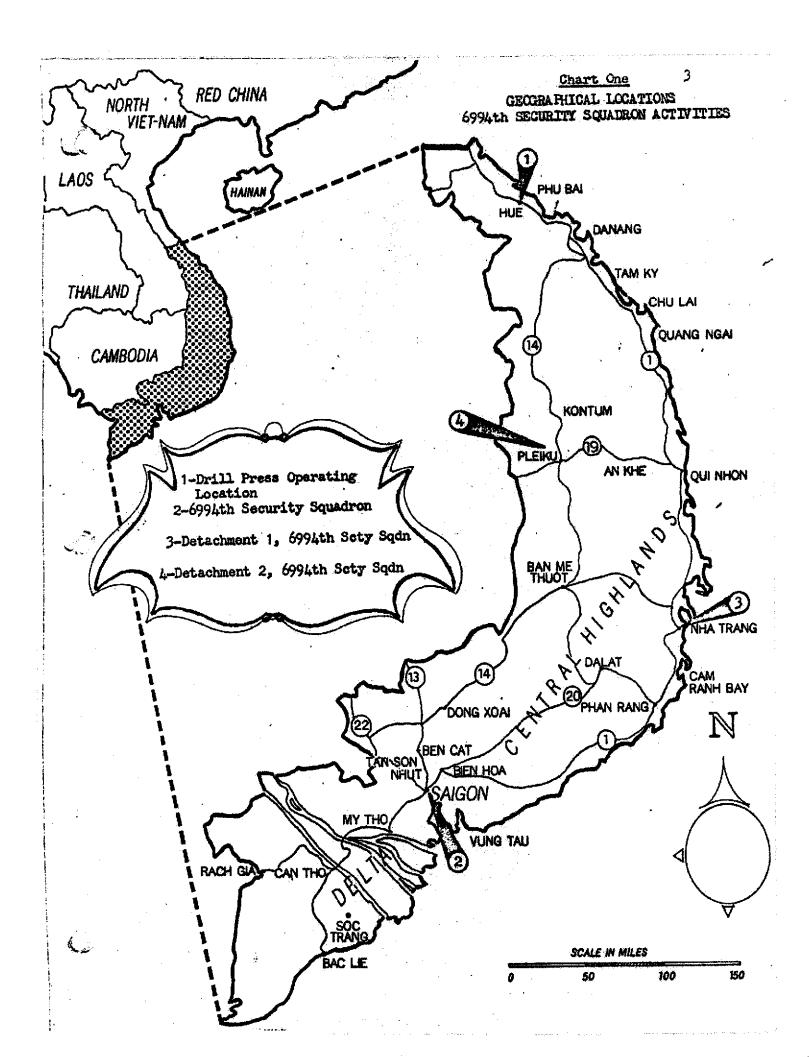
^{*} The project name "Phyllis Ann" was changed to "Compass Dart" during April. CSAF MSG AFRDHMT 76508 Mar 67 applies.

Organization

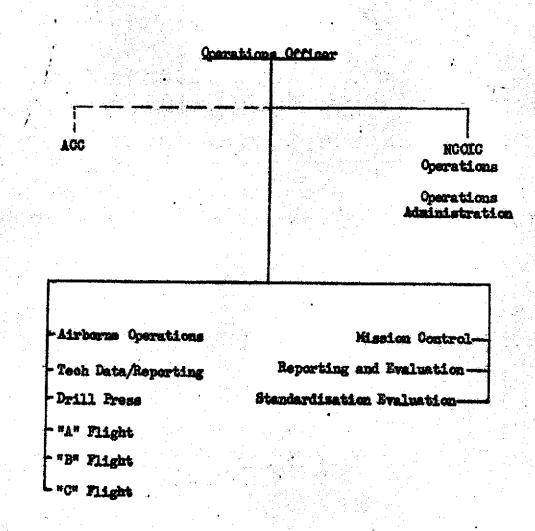
The 6994th Security Squadron was located at Tan Son Nhut AB, Vietnam. The squadron was directly subordinate to the 6922d Security Wing located at Clark AB, Philippines. Units subordinate to the squadron were its two detachments: Detachment 1, located at Nha Trang; and Detachment 2, located at Pleiku. Operationally, the unit was subordinate to Headquarters, Seventh Air Force, also located at Tan Son Nhut. However, due to ite close tactical support mission to ground operations, operational control was normally accepted as being exercised by Military Assistance Command, Vietnam (MACV-J2).

The squadron provided administrative and logistical support to the USAFSS Limison Office (SSLO); and to the USAFSS personnel assigned to the National Security Agency's SIGINT Support Group (SSG Det). These activities functioned independently of the squadron and played no role in the mission accomplishment. The USAFSS manning of the ARDF Coordinating Center (ACC) was provided from the squadron's resources.

Consisting of the entire contingent of Drill Press personnel and equipment, the activity was collocated with the 8th Radio Research Field Station and tasked with accomplishing mission committments in Northern Quang Tri Province. Only operational and maintenance personnel were assigned to the activity. Generally, these personnel were TDY from the 6994th Security Squadron. However, linguistic personnel were provided, in TDY status, by the 6988th Security Squadron. In two instances, the detachments of the 6994th Security Squadron were tasked with providing limited personnel assistance.



6994TH SECURITY SQUADRON Operations Division Organizational Chart

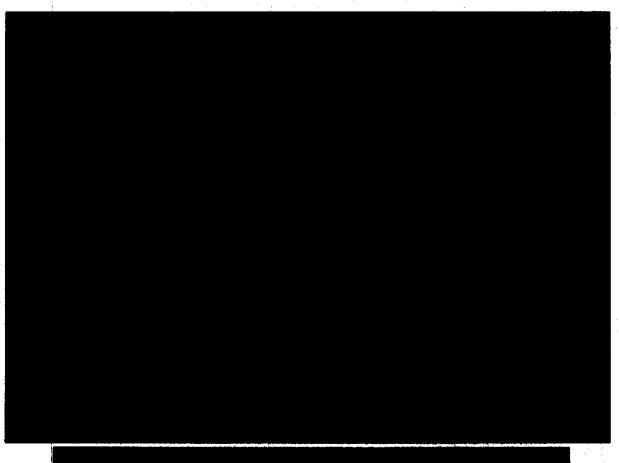


Organizational Changes

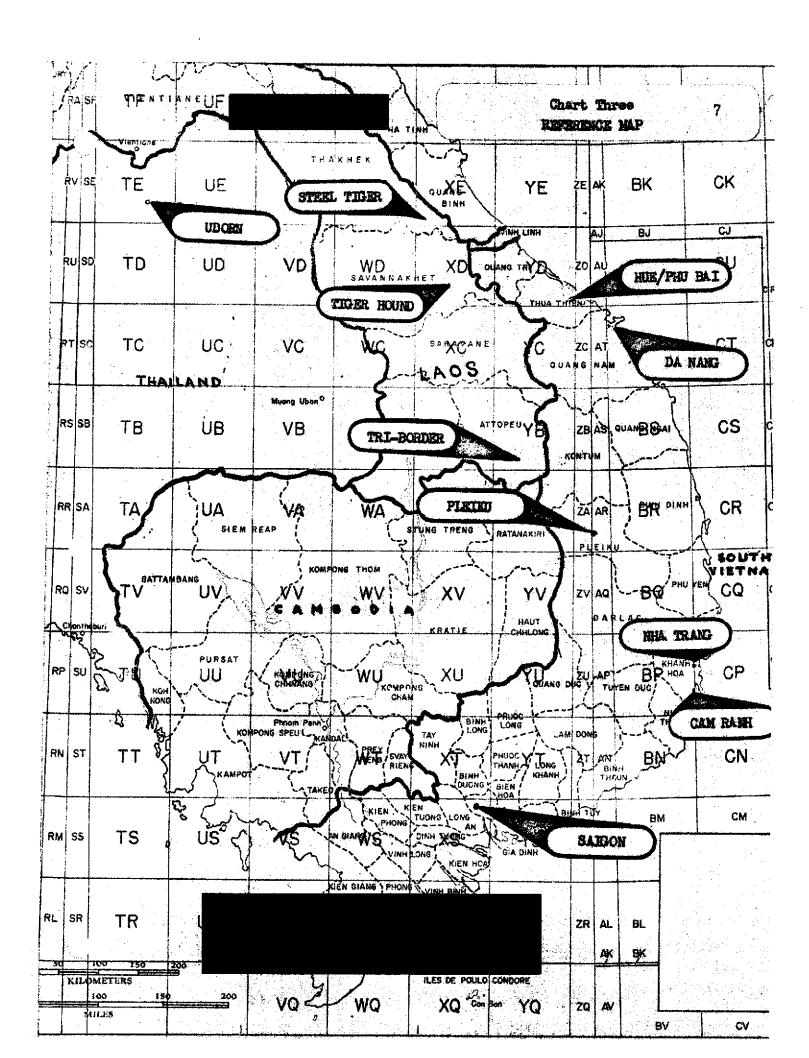
No organizational changes were effected during this period; however, two major and highly significant changes were proposed and considered. The final disposition of these proposed changes had not been resolved during this reporting period.

During early June a proposal for the relocation of Detachment 1, 6994th Security Squadron from its location at Mha Trang to Cam Ranh was instituted. The proposal was originated after knowledge was gained of a MACV intent to partially or completely vacate Nha Trang to curtail the steadily increasing inflatration in that area. Major operational disadvantages would evolve from the move; therefore, the idea of relocating the unit to Cam Ranh was abandoned, and, if in fact the unit was required to move, the decision was made to relocate the unit to a location that would improve mission effectiveness. Since ARDF and Drill Press missions were losing valuable mission time in transmitting from Pleiku, Wha Trang and Tan Son Whut to mission areas and/or other staging locations. 3 Hue/Phu Bai and Da Nang were selected as the most logical locations for providing coverage of northern South Vietnam (SVN) and Laos. Drill Press had maintained an operating location at Hue/Phu Bai since October 1966. Collocated with USM-808, the data base and processing center for the area, this location was highly desirable from an operational standpoint; however, logistics and security were prime considerations. During late June, Colonel Edwin H. Garrison, commander, Pacific Security Region, and Lieutenant Colonel Myman M. Bridges, commander, 6994th Security Squadron, visited Hue/Phu Bai to investigate the feasibility of the proposed relocation. They determined that the support facilities were

totally inadequate, nullifying the operational advantages expected to be achieved through the move. A Da Nang was given slight consideration; however, the facilities there were extensively overcrowded and inadequate, therefore it was eliminated as a choice. Although the amount of on-target time could be greatly increased by relocating the detachment to the northern portion of SVN, no satisfactory site for the location could be established. The entire proposal was dropped for the present, at least.



In a 14 December 1966 message, the DI, PACAF engaged the assistance of



7th and 13th Air Porces, APSSO Udorn and PACSCTYRCN in assessing the scope of the problem and identifying the ARDF resources required, present and future. As a result, an estimate of the enemy forces was accomplished; Dequirements for Compass Dart/Drill Press logistical support were promulgated; and a concept for employment of the ARDF/Collection equipment readied. Deployment of a minimum of one Drill Press and one Compass Dart aircraft to Thailand appeared imminent. Tentative follow-on plans were to divert an unspecified number of the attrition (NOA) aircraft, which were in actuality excess to MACV requirements to Thailand to replace the temperarily deployed aircraft. On 3 January 1967, the commander, USMACV, in reference to earlier correspondence, informed CINCPACAF of MACV opposition to the idea.

"By reference C the importance of the ARDF program in RVN was made clear. ARDF resources available in RVN and those programmed but not delivered are needed to meet MACV requirements. Any degradation of existing or programmed capabilities by diversion of these resources is unacceptable."

USAFSS, however, indicated emphatic approval of the idea as stated in a 14 January message to CSAF¹² and, in view of the excellent opportunities

"AFSS fully supports the immediate deployment of one of the two Drill Press aircraft to Uders in support of ARDF EW mission requirements in Thailand."

presented by the proposal, unhesitantly continued planning.

"While it is recognized that some objections may be raised to the movement of one Drill Press aircraft, feel that it is within the prerogatives of the CSAF to so direct. In February 1967, we will have sufficient Phyllis Annaircraft with acquisition positions capable of meeting the majority of Drill Press intercept capability. Additional intercept capabilities will be provided by 1QFT68 on 12 Phyllis Ann which will remove the PACAF requirement for 2 Drill Press by 1QFT68."

In a 20 January follow-on message to their 14 January proposal, USAFSS expanded on their views on the six NOA aircraft programmed for the Compass Dart program and indicated a firm stand on their proposal. 13 On 23 January 1967, CSAF informed USAFSS of their concurrence to the proposal and forwarded their recommendations to JCS for consideration. 14 JCS in turn aired the proposal to concerned agencies. In stating the MACV, MACTHAI and USARPAC positions on the proposal, General Westmoreland stated: 15

"It has not been concluded that the ARDF assets programmed for SVN will meet increasing MACV requirements. Since January 1966 when requirements were stated for the currently programmed ARDF aircraft, the MACV battle area has been extended, more enemy units have come to SVN, there has been an increased demand for close tactical support, and a growing need for development effort both for COMINT and planning for combat operations... It is essential that the Drill Press aircraft be retained in SVN until MACV has determined that this capability is no longer required."

Although some additional correspondence was exchanged on the subject, CINCPACAF in a 9 March 1967 message to JCS recommended that the deployment of the Phyllis Ann aircraft to Thailand be held in abeyance until all programmed aircraft had been delivered to SVN and MACV had accomplished a complete evaluation of their potential. On 11 March 1967, PACAF in a message to CSAF reiterated the still existing USAF requirement for ARDF in Thailand, stating:

"CAS requirements not relevant - we have stated unilateral USAF ARDF requirement in Thailand."

and:

"If possible, urge MACTHAI to reclame and submit Air Force requirements in terms of desired hours of coverage."

On 9 May 1967, AFSSO Udorn informed AFSSO 7th AF that: 18

"Twice repeated discussions with J-2 MACTHAI have been unproductive in terms of persuading them to restate requirements

in terms of Compass Dart aircraft. In essence the MACTHAI position is that the requirements for exploration of clandestine/insurgent communications can be met by ground system general search with U-S being used to pinpoint authentic unidentified or suspect transmitters."

The situation remained unresolved.

Internal Organisational Changes

The Standardization/Evaluation function became a responsibility of the Mission Control Branch. Analysis and Reporting and Technical Data/Reporting functions were transferred to Airborne Operations where they became the responsibility of the Tech Data and Reporting Section. These changes placed all functions common to local airborne operations within their responsibility, and equadron functions under the Mission Control Branch.

CHAPTER II - TARKING AND COLLECTION

Tasking

The unit's ARDF resources (Compass Dart) were tasked by MACV-J2 against Viet Cong and PAVN/NVA targets. The tasking was accomplished by weighing the ARDF requirements submitted by tactical commanders and SIGINT units, in light of their relative importance, against the resources available. All concerned agencies/activities were represented at the proceedings.

On 23 June, the MACV ARDF target priority system was revised.

This revision resulted in a general realignment of priorities. The emphasis was increased for targets that had been found to have a tactical mission and decreased for others. Also, the fix rate for each priority was increased.

During February, MACV ARDF areas were expanded to include the area off the coast of North Vietnam from the DMZ north to Dong Hoi. 2 This area was added in response to a III Marine Amphibious Force requirement for the locating of major terminals of the PARM 3248 NVA Division and the MID-65 division that were suspected of being located north of the DMZ just beyond range of the ARDF missions operating south of the DMZ. Detachment 2, 6994th Security Squadron commenced flying the area in mid-February.

The unit's Airborne Collection resources (Drill Press)
were tasked by 7th Air Force (DIOW) through coordination with MACV-J2
and the 509th Radio Research Group. Specific tasking was against PAVN/
NVA targets in the DMZ area that passed traffic in low-level (readable)
crypto systems.

SIGINT Collection

The SIGINT collection capability of the unit consisted of acquisition, monitor, record and ARDF of HF signals through the facilities of Compass Dart ARD-18 equipped aircraft (Chart4), and search, monitor and record of HF and VHF signals through the facilities of the Drill Press collection aircraft (Chart5).

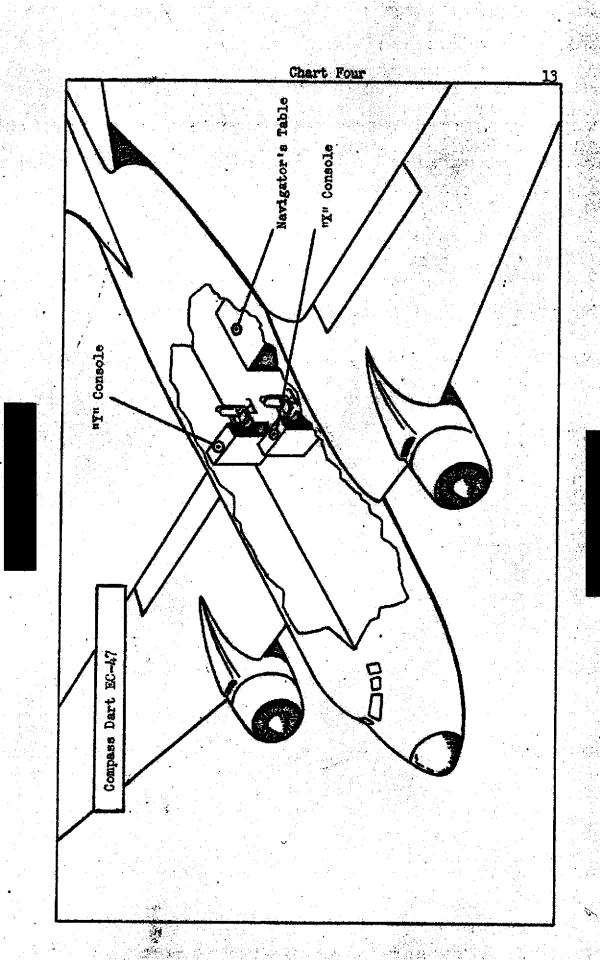
SIGINT Collection Facilities

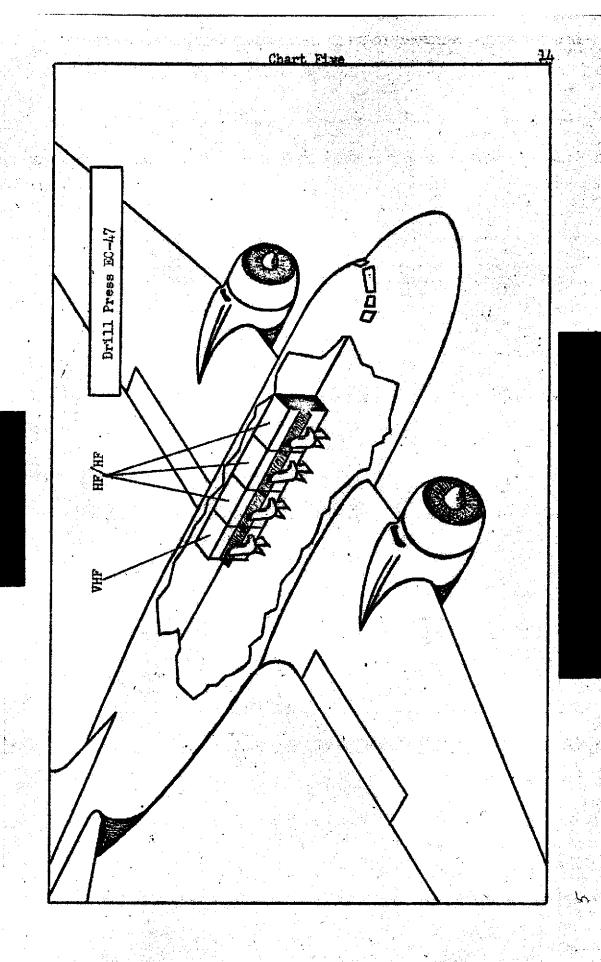
of 11 Compass Dart aircraft, five of which were HF acquisition equipped, at the enset of the period; increasing to 37 aircraft, 27 of which were HF acquisition equipped, by 30 June (Chart 54). Also in the inventory were the two Drill Press aircraft which were HF/VHF intercept equipped (Chart 5). A continual increase in capability was experienced by the arrival of additional aircraft and the installation of HF acquisition equipment in many of the existing aircraft. A decrease in capability was injected by the loss of two of the Compass Dart aircraft.

Compass Dart aircraft 43-49201 was lost to probable ground fire at approximately BS 821 428 on 9 March 1967.

On 18 February 1967, Compass Dart aircraft 43-49679 was involved in a ground accident that damaged it beyond repair. The unoccupied aircraft was parked adjacent to a ramp access taxiway when an Air America aircraft taxiing along the ramp experienced a brake malfunction and veered into the parked Compass Dart aircraft. All ARDF equipment was undamaged and was salvaged.

During January and February the unit experienced an abnormally low ARD-18 in-commission rate due to problems encountered





AIRCRAFT ARRIVALS IN-COUNTRY

Serial Number	Date Arrived	Location
43-49679	24 Jan 1967	TSN .
43-48402	4 Feb 1967	TSN
42-24313	6 Feb 1967	TSN
43-49009	18 Feb 1967	TSN
42-93814	3 Mar 1967	tsn
42-24300	4 Mar 1967	TSN
43-49260	11 Mar 1967	TSN
43-49547	14 May 1967	TSN
42-08980	31 Dec 1967	NHA
45-50925	6 Mar 1967	NHA
43-49491	10 Mar 1967	NHA
42-00665	16 Mar 1967	NHA
43-48702	31 Apr 1967	NHA
43-15133	11 Apr 1967	NHA
42-00950	2 Jan 1967	PKU
43-15980	16 Mar 1967 ·	PKU
43-49013	21 Apr 1967	PKU
43-15979	16 Apr 1967	PKU

with the coordinate converted digitizer and a lack of supply support for the item. Technical representatives of Sanders Associates reported that the indications were that the system developed major problems after approximately 600 hours of operation. This was occurring after the system had been in use for less than four months and was creating a loss of approximately 15 per cent of the assigned aircraft strength. Production of the component for use in producing the ARD-18 systems was consuming all parts being produced and supply could not meet this unexpected demand. Consequently, it was necessary to remove eight complete units from the production line to alleviate the existing situation. Sanders Associates dispatched an engineer to the unit during March to assist in resolving the problems with the component.

Twenty-three Compass Dart aircraft were programmed to be equipped with wiring components that would facilitate the installation of the "Z" consoles. It was determined that this modification would have to be accomplished in the field and Itazuke AB, Japan was selected as the location best suited to accomplish the project. The modification encompassed the installation of the wiring components (Group "A") for the "Z" consoles and the KY-8 system. The "Z" modification was identified as MOD 270. The two modifications were to be accomplished simultaneously. Two aircraft were programmed to be in modification at one time. The loss of the aircraft for an estimated 10-day period was expected to induce a loss of seven per cent in the unit's ARDF capability; or a reduction of 15 seven-hour sorties per week. 10 By programming the aircraft for the modification so that each of the units had only one aircraft undergoing modification and possibly one enroute at any given time, the reduction in capability would be negligible. The initial aircraft to receive the modification were 42-93814, 11 which departed Tan Sen Maut on 21 June, and

43-48158, which departed Pleiku on 24 June. The team tasked with accomplishing the modification arrived at Itazuke AB from CONUS without the wiring schematics and consequently could not commence the modification until their arrival. At the closure of this report, the modification had not begun.

capability from 15 January through 25 February that was incurred by the deployment of aircraft 43-16254 to Taiwan for corresion control and IRAN. Land this period it was necessary to reduce the mission duration to five hours to preclude exceeding the monthly flying hour limitation of 125 hours per airframe. Although this reduction in mission time was detrimental to mission effectiveness, skillful manipulation of scheduling to cover the most productive times resulted in a minimal loss of desired target coverage.

During April, PACAF authorized an increase in the maximum monthly flying hour allocation for Drill Press from 125 hours to 150 hours per airframe. This increase aligned the Drill Press airframe flying hour allocation with that of the Compass Dart aircraft. The capability of Drill Press was increased significantly by this 50 hour per month increase in airframe availability.

On 21 April, the unit initiated a request for the installation of KY-8 communications equipment in the Drill Press aircraft. This request was invoked by the extremely high volume of traffic that Drill Press was collecting that contained highly significant perishable intelligence of immediate value to Tactical Commanders and the delay that was occurring in the delivery of this information to the consumers. The

delay was occurring due to the non-availability of a secure communications media for passing the traffic to the processing station. The request was favorably considered at all echelons and the equipment was subsequently programmed for 4QFI67 installation in the aircraft. The 8th Radio Research Field Station, Hue/Phu Bai AB was to provide a compatable ground station to complement the system. The programmed date for installation of the airborne components was not met.

During late April, four Compass Dart aircraft, 43-49865, 43-48933, 42-93166 and 44-76668 were transferred from Tan Son Nhut AB to Pleiku AB. 18 The purpose of the transfer was to provide a distribution of resources more compatable with mission requirements. The aircraft strengths after the transfer were 13 at Tan Son Nhut and 15 each at Nha Trang and Pleiku.

SIGINT Collection Policies

Considerable discussion transpired relative to the impending advent of the air/ground/air secure voice network in SVN and the installation of the KY-8 communications equipment in the Compass Dart aircraft. Those problems resolved were: ¹⁹ (a) establishing procedures for coordinating with the services involved to resolve operational problems, (b) developing operating instructions for the Compass Dart KY-8 operators, and (c) establishing the key list to be utilized by all subscribers to the net. Also, a KY-8 maintenance course was conducted at the 6922d Security Wing for selected maintenance personnel from the 6994th Security Squadron and its detachments. ²⁰

During March, a proposal was initiated locally suggesting that the UMD authorizations for A202XO Airborne Analysis personnel for

the Compass Dart program be changed to A292XI Airborne Radio Intercept Operator authorizations. 21 The proposal was directed at the ferthcoming "Z" or Phase II aircraft and was based largely on the theory that the A292XI would have constant technical assistance available through the use of the KY-8 to contact the data base. In rebutting the proposal, the fact was pointed out that the KY-8/T-217 system had an optimum effective range of approximately 50 miles. 22 Also, attention was invited to the success of Brill Press during the previous 13 months, which is justifiably accreditable to the airborne analysis support. The proposal was subsequently discarded by the unit's operations officer. 23

Due to an increasing amount of interference on the ARDF air/ground frequencies of 40.8 and 42.7 MHZ by unauthorized stations, the 6994th Security Squadron in coordination with the 509th Radio Research Group and MACV-J6 implemented procedures wherein violators of the frequencies were reported to MACV. The reports, titled INTORAD, were submitted in accordance with MACV directive 105-21 (Communications Electromagnetic Interference) from 22 April through 15 May. Obviously, the effort was successful since a sharp decline in interfering stations was noted.

Special Collection Projects

During early January, a post mission test procedure was established by the maintenance section at the 6994th Security Squadron, which enabled an operational analysis of the performance of each ARD-18 system. Two doppler check points were established for the test and the HF transceiver installed in the maintenance section was the target transmitter. Travelling between the two doppler points, the aircraft

obtained three LOP's off the nose of the aircraft and LOP's off the wing at 45 second intervals. The LOP's were plotted and the angle of error of each was recorded and a history maintained of each ARD-18 system. Analysis of this history revealed deterioration in equipment capability that could have otherwise been overlocked. The procedure proved quite valuable, and was, therefore, recommended to, and adopted by each of the detachments.

Sanders Associates requested that the organization record the signals of target transmitters as they were being worked on the ARD-18. The recordings were desired to be utilized in conjunction with the printer tapes by the engineers of Sanders Associates in performing a study of the equipment performance in an operational environment. USAFSS approved the request and the unit forwarded approximately 20 of the tapes to Sanders.

U.S. Army ARDF aircraft and Compass Dart aircraft when priority targets were noted active. Since Drill Press had the capability to identify targets being intercepted, the idea provided the ARDF aircraft with the tip-off of 348 priority targets. Only 34 fixes resulted from the effort; however, the feasibility of the air-to-air tip-off was validated and indications were that the effectiveness of the procedure could be greatly improved by the use of KY-8 communications and more compatable scheduling of the aircraft. 27

^{*} Information was compiled from Drill Press daily performance profile.

During mid-January, the Director of Intelligence,

7th Air Force requested that Drill Press accomplish missions in Laos
in an effort to develop and exploit overland infiltration complexes.

for tactical purposes. Three missions were accomplished by the
aircraft from their operating location at Hue/Phu Bai on 13, 14, and

15 January. However, the effort was aborted in favor of the higher
priority intelligence requirements in the DMZ/Quang Tri Province area.

Mission results of the endeavor were highly encouraging; 441 minutes of
manual morse intercept associated with the overland infiltration complex
was collected, 80 per cent of which was unique. Two previously unknown
terminals were also reflected in the traffic.

During mid-June, in response to a MACV/7th AF requirement,
Drill Press deployed one aircraft to Pleiku AB to accomplish missions
in the Tri-Border area. Flagged Operation Sam II, the effort was
directed against the development of an unidentified element of suspected
division level that was forming in the area. Drill Press accomplished
10 missions during the 11 through 20 June deployment, providing USM-604
with sufficient data to assign case notations to two target complexes
and originating 62 tip-offs to ARDF aircraft in the area.*

^{*} This information was compiled from Drill Press weekly operational summaries.

CHAPTER III - PROCESSING AND REPORTING

Processing

The unit's processing mission consisted of cursory analysis of the traffic and operator logs for identification purposes and extracting messages of possible significance for electrical forwarding, and the maintenance of forms and records, as necessary, to accomplish reporting and resource managerial duties.

Reporting

The unit's reporting mission consisted of (a) the reporting of ARDF fixes via air/ground radio, which was accomplished with a 96 per cent effectiveness; (b) the issuance of the Electronic Warfare Baily Operational Management Report HILITE; (c) Position Status Reporting; (d) Master Program change actions; (e) ARDF Recovery reporting; (f) Drill Press Operational Summary reporting, and (g) USAF Special SENSOR reporting.* No significant changes occurred in the reporting mission.

^{*} Details of each report is contained in RGS: AU-D5 (AFS-1), History of the 6994th Security Squadron, 1 July - 31 December 1966.

CHAPTER IV - MISSION ACCOMPLISHMENTS

This chapter was inaugurated to provide the reader with a comprehensive review of the Air Force ARDF (Compass Dart) and Airborne COMINT Collection (Drill Press) contributions to the intelligence support of combat operations of the Vietnam conflict. It summarizes the operational activities of the 6994th Security Squadron and its datachments.

Compass Dart

Compass Dart aircraft accomplished 5,251 ARDF missions.

A total of 2,924 missions provided close tactical support for allied operations, and 2,327 were accomplished for continuity and development.

ARDF results totalled 24,431 fixes and cuts. A total of 7,692 fixes were identified to specific VC/NVA transmitters and 3,488 were predesignated MACV priority targets. Much of the planning and execution of both ground and air actions stemmed from this ARDF information.

ARDF results were passed from the aircraft to Direct
Support Units (DSU's) collocated with combat elements; Army and Air Force
ARDF results fused for reporting; and, the intelligence gleaned from
ARDF associated intercept reported in Army intelligence reports; consequently,
it was almost impossible to isolate the numerous contributions of Compass
Dart. Local and National level consumers did, however, indicate constant
awareness to the importance of their ARDF effort. Brigadier General
Jammie M. Philpott, DCS Intelligence, 7th Air Force, in a letter dated
5 April 1967, cited MACV acknowledgement of the continually increasing
productivity of ARDF and the large volume of useable and reliable information
of considerable military value that ARDF was providing to field commanders;

General Philpott added:

"I would like to take this opportunity to add my appreciation for the contribution that you are making to the overall intelligence program here in Vietnam."

On 6 May 1967, Lieutenant General William W. Momyer, commander, 7th Air Force, in a conversation with Colonel R. G. Williams, commander, 460th Tactical Reconnaissance Wing, commented:

"I was visiting Pleiku the other day and noted that the morale was extremely high. I want all personnel in this mission to know that the primary and basic source of intelligence of the enemy in this country comes from Compass Dart, and I want the people in those squadrons to know it."

The following chronological brief conveys an overall account of the applications of ARDF to combat activities and the ensuing results. It also provides a glimpse of some accomplishments that were, in effect, a mission by-product.

ARDF fixes were obtained and passed to combat elements in support of Operations Thayer I and II, and Irving. At least two B-52 strikes were targeted against a VC Division Headquarters from this information. Also, numerous fixes were fired on by artillery and naval gunfire. One significant engagement resulted from ARDF information. A total of 3,132 VC/NVA enemy were killed in the action and more than 3,300 suspects detained. ARDF results were utilized extensively in the overall planning and execution of the operations.

During January, CTS was provided for Operations Fairfax and Ianikai, joint RVN/Allied operations. ARDF results were not acted upon immediately, but rather were utilized to plan operations on a day-to-day basis. More than 600 casualities were inflicted on the

enemy during these operations.

Operation Gadsden. The planning of the operation was accomplished through an area study of transmitters located by ARDF within the area of interest. Four hundred and eighty fixes were obtained in support of the operation of which 295 were of immediate value to the combat elements. One B-52 strike was executed against a VC Regimental Headquarters located by ARDF. More than 375 enemy were killed in the action.

Falls, an operation designed to destroy the enemy's secure base in Binh Duong Province from which he launched operations to the Saigon/Cholon areas. The operation was planned through an area study of ARDF results. ARDF guided the friendly forces directly to the enemy and continued locating his camps and staging areas throughout the operation. The enemy sustained more than 720 casualties, lost 555 individual and 23 crew-served weapons, and more than 3,700 tons of rice to the friendly forces. Of the 574 ARDF fixes passed in support of the operation, 362 were of immediate value to the combat elements. The operation was termed one of the most successful of the conflict.

On 13 January, a Det 1 mission obtained ARDF of a waterborne target and visual sighting of four medium size VC cargo vessels at the fix location. A Market Time policeman was called in and boarded the vessels. The enemy transmitter and the VC crew members were captured.

On 17 January 1967, a Compass Dart mission from Tan Son
Nhut intercepted a "beeper" signal. Utilizing the aircraft RDF and

ARDF associated mavigational equipment to determine the approximate location of the signal, they entered the area and established radio contact with the downed aircrew member. The mission called in rescue and orbitted the area until the rescue had been effected.

On 31 January 1967, a Compass Dart mission from Tan Son Nhut intercepted a "beeper" signal northwest of Phan Rang. Locating the crash site of a downed helicopter, they called in rescue and stood by while the safe recovery of the 10 crew members was effected.

provided for Operation Big Spring. A total of 335 ARDF fixes of enemy transmitters were provided the tactical elements during this relatively small, but highly successful, search and destroy operation that netted more than 100 enemy casualties.

for Operations Farragut and Catling. Executed for the purpose of eliminating VC domination of National Route 1, the 101st Airborne Division relied heavily on ARDF to determine the areas of enemy activity; also, several B-52 strikes were executed against targets located by ARDF. More than 150 casualties were inflicted upon the enemy during the operations, and more than 135 suspects detained.

On 15 February 1967, a Compass Dart mission out of Pleiku Airfield made visual sighting of a fleet of seven barges/sampans. An air strike was called in and one of the vessels was destroyed and the remaining damaged and sunk.

On 22 April 1967, a Compass Dart mission out of Pleiku
Airfield reported visual sighting of two suspected enemy vehicles. An

air strike subsequently confirmed the vehicles as enemy trucks and destroyed each; one resulted in a secondary explosion.

On 25 April 1967, a Compass Dart mission out of Pleiku
Airfield reported visual sighting of two suspected enemy trucks; both
were destroyed by air strikes.

On 27 April 1967, a Compass Dart mission out of Pleiku Airfield reported visual sighting of three sampans, they were confirmed as enemy, and an air strike was launched to destroy them. However, the results of the strike were not returned.

On 1 April 1967, a Compass Dart mission fixed a waterborne target, then obtained visual sighting of four VC vessels in the Saigon River at the fix location. The vessels were attacked by helicopters and AlE aircraft; one was sunk, one blown up, and the remaining two beached and sunk.

On 17 April 1967, a Compass Dart mission made a visual sighting of a suspected VC vehicle. The target was reconnaissanced by a FAC and confirmed to be enemy. An air strike was called in and the vehicle destroyed.

During April 1967, CTS was provided for Operation

Summerall. In planning the operation, an area study of 134 ARDF fixes was conducted. The 101st Airborne Division, who executed the operation commented:

"ARDF support was a great factor in the planning and executing the operation. ARDF once again proved the most valuable source of useable intelligence."

During April 1967, CTS was provided for Operation Francis
Marion. On 23 April, the Headquarters, 1st PAVH Division was located by

ARDF, the 4th Infantry Division immediately sent a patrol into the area. However, the patrol withdrew upon making contact. On 30 April, a target associated with the 630th Military Front was located. The 4th Infantry Division made contact with the enemy at the location. They confirmed 12 NVA troops killed in action. Pursuing the enemy forces, which was estimated to be company size, they inflicted more than 90 casualties on the fleeing force, destroyed 200 bunkers and tunnels, and captured a large number of weapons.

During February, March, April and May, CTS was provided for Operation Junction City, one of the largest operations of the conflict. Specific results of the operation were not available; however the following information should convey a general idea of the significance of the ARDF support:

"The most valuable COMINT product was airborne radio direction finding provided by the 146th Aviation Company and the 6994th Security Squadron. During phase II of the operation a total of 1,558 ARDF fixes were received of which 903 were of immediate value to the supported command."

"Brigadier General McChristian visited the 11th ACP (FWD). The Commanding General indicated that he was very satisfied with ARDF support and credits timely ARDF with preventing one VC assault against the fire support base."

"Brigadier General Knowles explained to Lieutenant General Seaman that the 196th Infantry plans to react immediately to all ARDF cuts and fixes."

"Major General Johnson asked Brigadier General Knowles about the effectiveness of ARDF and other SIGINT support. General Knowles stated that it was a very important factor in his operational planning."

"The headquarters of the Military Intelligence Bureau CCSVN was struck by B-52's on 5 March 1967. Target was located by ARDF."

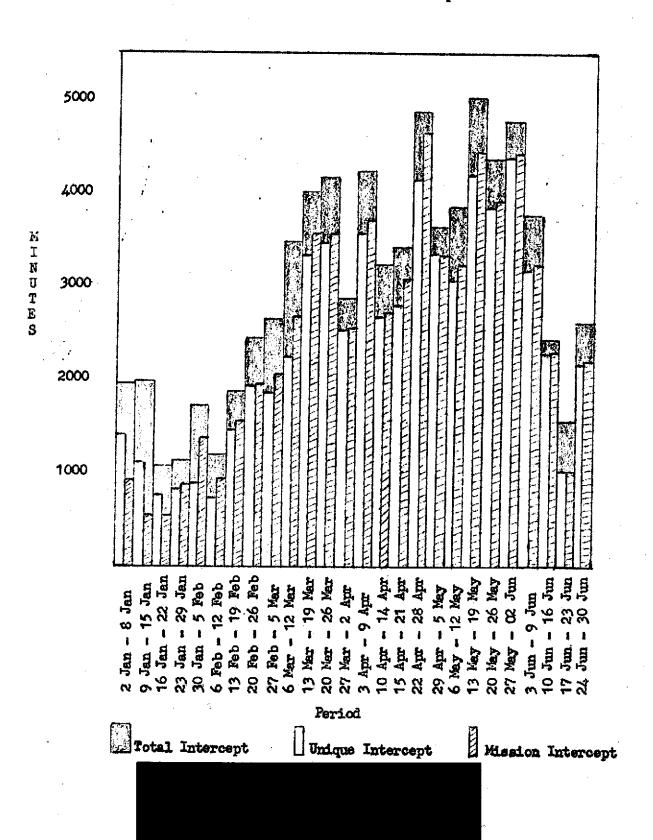
Drill Press

From 24 September 1966, Drill Press maintained uninterrupted surveillance of low echelon NVA communications in the DMZ area. Staging from their operating location at Hue/Phu Bai, the project provided USM-808 with an invaluable source of intelligence revelant to tactical activities in the area. On 26 May, the Commanding General, USASA, in a message to the Director, National Security Agency commented:

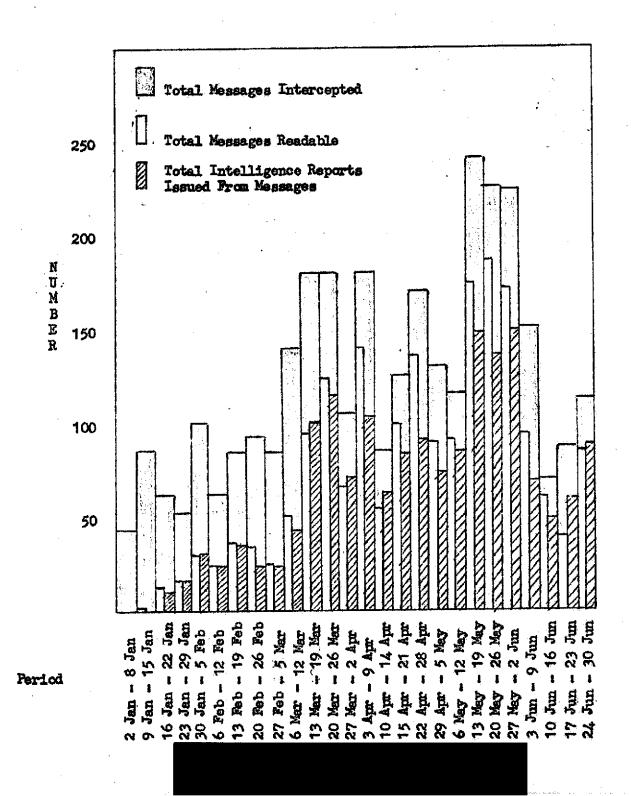
"Current Drill Frees operations, flying against VC comms in and near the DMZ with USM-808 acting as CMA, are proving to be invaluable. Traffic, encrypted in readable systems, is intercepted on every sortic and immediately turned over to the cryptanalytic and linguistic personnel in the P&R section at USM-808 following the flight."

Targeted against those NVA targets known or suspected to be passing traffic in readable, low level, crypto systems (PAVN 324B NVA Division and associated communications), Drill Press collected more than 78,000 minutes of manual morse traffic. Eighty per cent of this traffic was unique to USM-808 sources and 83.5 per cent of the traffic was mission intercept. More than 3,150 messages were contained in the traffic, 64 per cent of which were readable and resulted in the generation of more than 2,160 intelligence reports.

Drill Press Manual Morse Intercept



Messages Intercepted By Drill Press



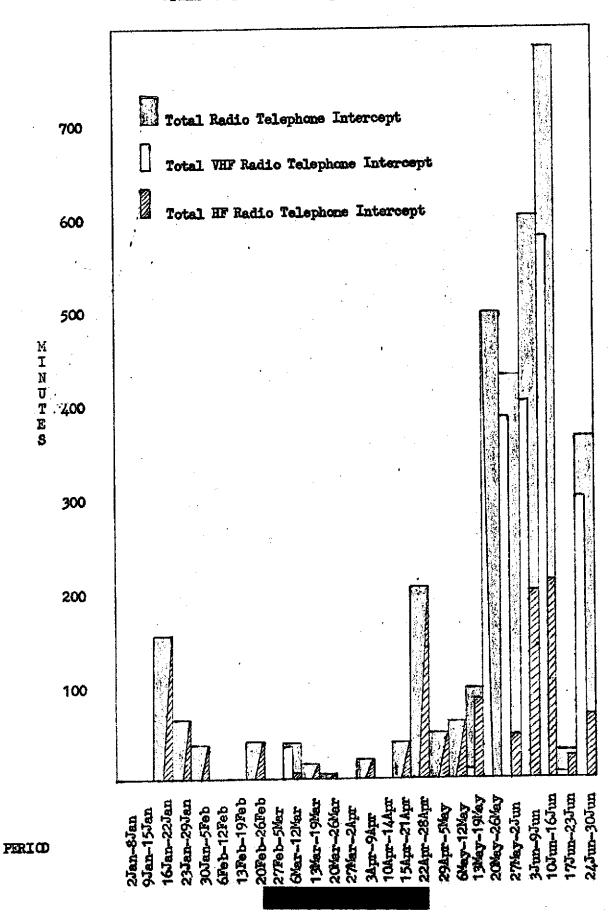
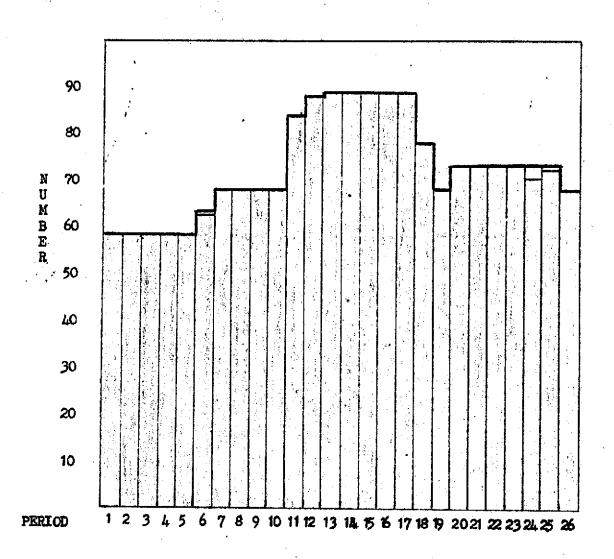


Chart Nine

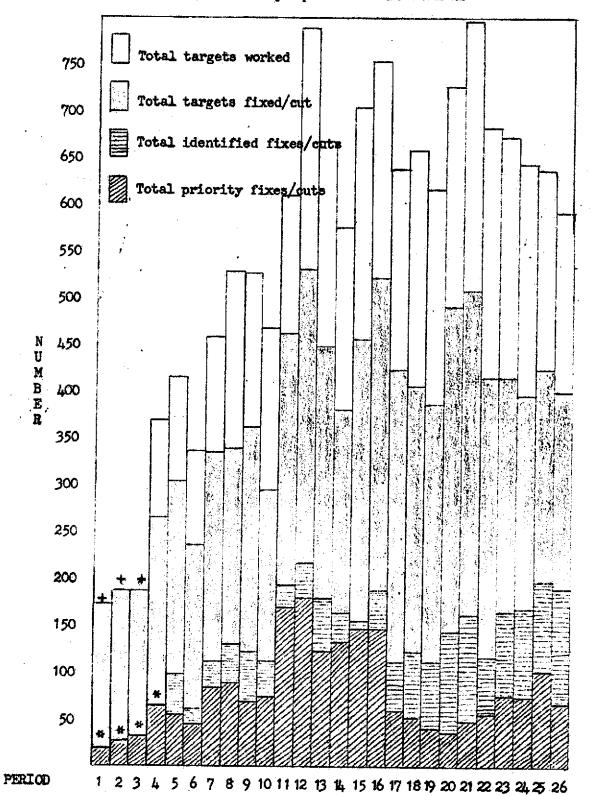
6994th Security Squadron
Compass Dart Mission Summary



Missions scheduled

Missions accomplished



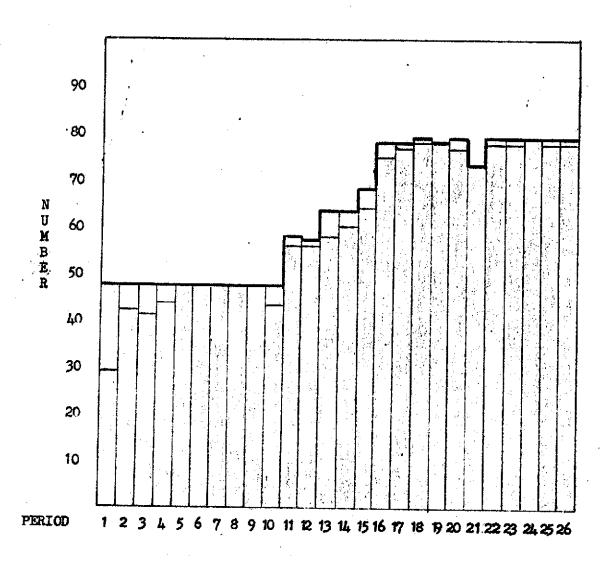


+ Total targets worked not available

* Total identified fixes/cuts not available

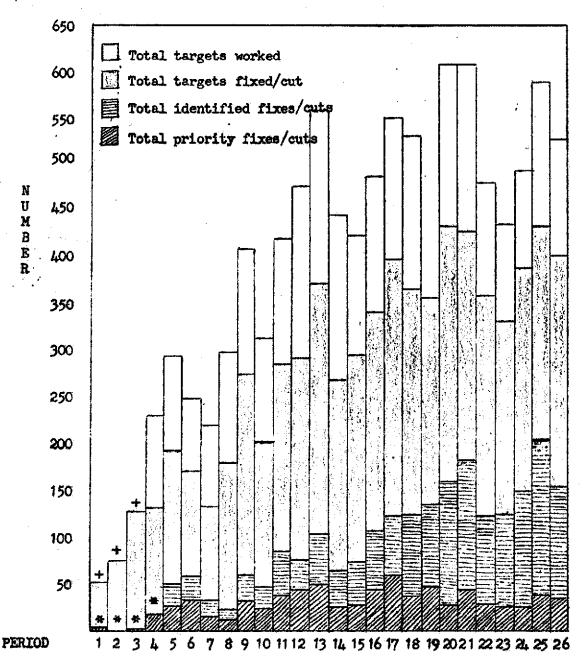
Chart Eleven

Detachment 1, 6994th Security Squadron Compass Dart Mission Summary



Missions scheduled Missions accomplished

Detachment 1, 6994th Security Squadron ARDF SUMMARY

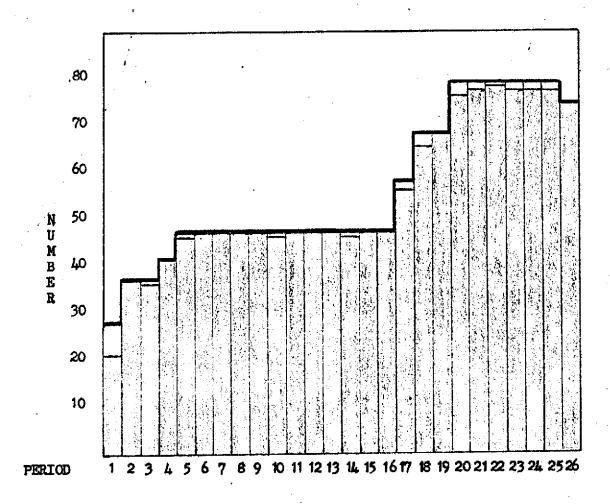


+ Total targets worked not available

* Total identified fixes/cuts not available

Chart Thirteen

Detachment 2, 6994th Security Squadron Compass Dart Mission Summary



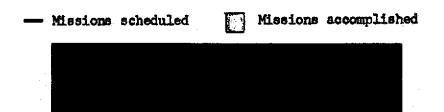
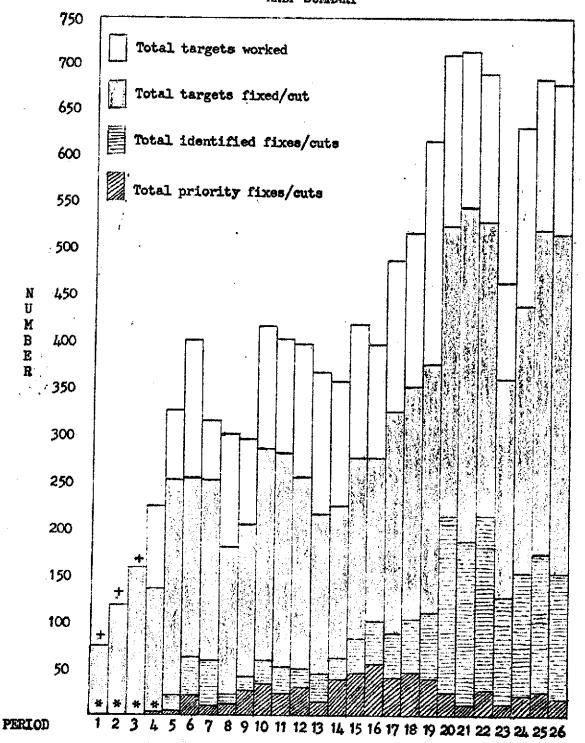


Chart Fourteen

Detachment 2, 6994th Security Squadron ARDF SUMMARY



+ Total targets worked not available * Total identified fixes/cuts not available

FOOTNOIES

Chapter I

- 1. Mag, 6994th Sety Sq CDR 28316, 28 May 67, Doc. 1.
- 2. Msg, 6922d Sety Wg OPS 02722, 3 Jun 67, Doc. 2.
- 3. Ibid.
- 4. Mag, PACSCTYRGN, CDR 17594, 17 Jun 67, Doc. 3.
- Interview by Sgt Odom with Capt R. V. Barnett, assistant operations officer, 6994th Scty Sq.
- Msg, CINCPACAF, DI 23840, 09 Aug 66.
- 7. Msg, 6994th Scty Sq, OPR 01008, 30 Nov 66.
- 8. Msg, AFSSO PACAF, DI 14372, 14 Dec 66, Doc. 4.
- 9. Msg, AFSSO PACAF, DI 14121, 14 Dec 66.
- 10. Msg, AFSSO UDORN, DI USSO 00016, 9 Jan 67.
- 11. Msg, SSO MACV, MAC 0061, INTEL, 3 Jan 67.
- 12. Mag, USAFSS, ODC 54507, 14 Jan 67, Doc. 5.
- 13. Msg, USAFSS, OFD 51284, 20 Jan 67.
- 14. Msg, AFSSO USAF, AFNICAC 00386, 23 Jan 67, Doc. 6.
- 15. Mag, AFSSO PACAF, DI 11212, 03 Mar 67, Doc. 7.
- 16. Msg, 6994th Sety Sq. OPS 10124, 10 Mar 67, Doc. 8.
- 17. Msg, AFSSO PACAF, DIP 11243 Mar 67.
- 18. Msg, AFSSO UDORN, USSO 0409, 9 May 67, Doc. 9.

Chapter II

- 1. Msg, MACV (cite UNK) DTG 200848F Jun 67.
- 2. Msg, MACV MAC 1419 INTEL, 10 Feb 67.

- 3. Report, 6994th Scty Sq, DTD 20 Apr 67, final summary of loss of acft.
- 4. Msg, 6994th Scty Sq, OPS-2 19407 Feb 67 PSR 23.
- 5. Msg, 6994th Sety Sq, CDR 21519, 21 Jan 67, Doc. 10.
- 6. Ibid.
- 7. Msg, 6994th Scty Sq MNT 19407, 19 Feb 67, Doc. 11.
- 8. Msg, 6994th Sety Sq MAT 20212, 19 Jun 67.
- 9. Interview by Sgt Odom with Capt Edward E. Smith, Jun 67.
- 10. Msg, 6994th Scty Sq CDR 31344, 31 May 67.
- 11. Msg, 6994th Scty Sq, OPS-2-22316 Jun 67, PSR51.
- 12. Msg, Detachment 2, 6994th Scty Sq, OPS 25355 Jun 67, PSR 46.
- 13. Msg, 6994th Scty Sq, MAT 30344 28 Jun 67.
- 14. Msg, 6994th Sety Sq, OPR-2-15344 Jan 67, PSR 07.
- 15. Msg, CINCPAC (U) DOOT 38014, 11 Mar 67.
- 16. Msg. 6994th Sety Sq OPS 21368, 21 Apr 67.
- 17. USAFSS Master Program Vol II, DTD 1 Jun 67.
- 18. 6994th Scty Sq Position Status Reports, numbers 43, 44, 47 and 48.
- 19. Mag, USAFSS TTD/TTS 47071, 30 Jun 67.
- 20. Interviewed by Sgt Odom with Capt Edward E. Smith, Jun 67.
- 21. Ibid.
- 22. Ibid.
- 23. Ibid.
- 24. Msg, 6994th Sety Sq OPS-3 22384, 22 Apr 67.
- 25. Interview by Sgt Odom with Capt Edward E. Smith, June 67.
- 26. Msg, 6994th Sety Sq CDR 18452, 18 Jan 67, Doc. 12,
- 27. Msg. 6994th Sety Sq OPS 14215 14 Mar 67.
- 28. Msg, 6994th Sety Sq OPS 19459 Jan 67.

GLOSSARY

A

AB

Air Base

ACC

Airborne Radio Direction Findin Coordination

Center

AFSSO

Air Force Special Security Officer

ARDF

Airborne Radio Direction Finding

В

BC

Body Count

C

C&D

Continuity and Development

CINCPACAF

Commander-in-Chief, Pacific Air Force

COMINT

Communications Intelligence

CONUS

Continental United States

CSAF

Chief-of-Staff, Air Force

CTS

Close Tactical Support

D

DMZ

Demilitarized Zone

DSU

Direct Support Unit

H

HF

High Frequency

<u>I</u>

TRAN

Inspect and Repair as Necessary

INTORAD

Report of Radio Frequency Interference

J

JCS

Joint Chiefs-of-Staff

K

KIA Killed in Action

L

LOP Line of Position

M

MACTHAI U.S. Military Assistance Command, Thailand

MACV U.S. Military Assistance Command, Vietnam

N

NVA North Vietnamese Army

P

PACAF Pacific Air Force

PAVN People's Army, Vietnam

R

RRC Radio Research Company

RRFS Radio Research Field Station

RRG Radio Research Group

SSLO USAFSS Liasion Office

SVN South Vietnam

IJ

USARPAC U.S. Army Pacific Command

UMD Unit Manning Document

U.T.M. Universal Transverse Mercator

USASA U.S. Army Security Agency

Ŧ

VC

Viet Cong

VHF

Very High Frequency

X

 $\pi \chi n$

ARD-18 Position

Y

пYп

D.F. Acquisition Position

<u>Z</u>

"Z"

Phase II Compass Dart Aircraft

SUPPORTING DOCUMENTS

(The "Air Force Eyes Only" handling afforded certain supporting documents was withdrawn. Document six applies.)



PROJECT CORONA HARVEST DO NOT DESTROY

PRIORITY

0408219

6994SCTY SQ TAN SON NEUT AB WEETN

6922 SCTY WG CLARK AB PHIL

CDR 283/6 MAY 67. SUBJ: MOVE FROM

NHA TRANG. AT 0900, 28 MAY 67, MAJOR MELLOTT AND OTHER LOCAL COMDR'S WERE CALLED INTO A BASE CONFERENCE AND TOLD TO GATHER DATA APPLICABLE TO OUR REQUIREMENTS IF FORCED TO MOVE FROM NHA TRANG. MEETING WAS CHAIRED BY A LT COL KELLEY, WHO HAD JUST SPENT SEVERAL DAYS AT SEVEN-TH AF AND WITH MACV J-4 DISCUSSING MOVES FROM NHA TRANG FOR REASONS OF INFLATION, ETC. ALL GIVEN THE WORKSHEET BELOW AND ASKED TO FILL IN THE REQUIRED INFORMATION NO LATER THAN SETUESDAY, 30 MAY. UNITS MERE ALSO TOLD WHERE THEY WOULD BE RELOCATED. THE 361ST AND OUR UNIT WERE TOLD THAT THEY WOULD MOVE TO CAM RANH, IF AND WHEN IT WAS DECIDED BY MACV TO VACATE NHA TRANG EITHER PARTIALLY OR COMPLETELY. LT COL KELLEY STATED THAT HE HAD OX'D THIS MOVE TO CAM RANH WITH COL WILLIAMS OF THE 460TH TRW. HAVE REPRODUCED REFERENCED WORKSHEET BELOW AND IN-DICATED IN DOUBLE PARENTHESES INTENDED RESPONSE. WE WILL CONSULT WITH OTHER OFFICES CONCERNED WITH OUR MISSION AT SEVENTH AIR FORCE AND MACV.

28

MAY

1967

4644

Lt Col Gilbert

WYMAN'M. BRIDGES, Lt Col, USAF

ZCZCDNA634

PP YADNQO

DE 1MZADL 121 1540538

P 030515Z

FM 6922SCTYWG

TO PACSCTYRGN

INFO 6994SCTYSQ

ZEM

CHANNELS SECTION ONE OF THREE

No 0408224

PROJECT CORONA HARVEST

DO NOT DESTROY

OPS 02722 JUN 67.

MOVE OF DET 1, 6994SS.

REFS: A. OUR OFS 02659 30 MAY 67 (6994 DCR 28316 QUOTED)

- B. USAFSS OFD 52027 31 MAY 67 (NOTAL)
- C. 6994 OPS X1003 (CITE GARBLED) O1 JUN 67 (ACC IAPV 53/ACC 7152 3631 QUOTED)
 - D. 6994 CDR 01003 01 AFR 67 (NOTAL)
 - E. YOUR OPS 17039 02 JUN 67

THIS HQ VIEW IS THAT THE IMPORTANCE OF ARDF INFO TO SEA FIELD COMMANDERS OVERRIDES ANY OTHER CONSIDERATIONS IN THE PLACEMENT OF COMPASS DART/DRILL PRESS ACFT. THE VIET CONG HIT AND RUN TACTICS MAKE A HIGHLY FLUID TACTICAL SITUATION WHICH NECESSITATES INCREASED USE OF MOBILE RADIO COMMUNICATIONS BY BOTH SIDES. USAFS CONTINUING INNOVATIONS IN TRANSEC/COMINT MISSION ARE INCREASINGLY MEETING THE CHALLENGES PRESENTED., OUR DEPLOYMENT AND UTILIZATION OF THE 6994 ELECTRONIC WARFARE RESOURCES HAVE PROVIDED OUTSTANDING SUPPORT

TO MACV, AS ATTESTED BY NUMEROUS FAVORABLE COMMUNICATIONS. ACTIONS TO IMPROVE AIR TO CROUND COMMUNICATION AND AIRBORNE COLLECTION EQUIPMENT WILL FURTHER ENHANCE OUR PRODUCT. HOWEVER, WE ARE DAILY LOSING VALUABLE MSN RESULTS THROUGH REDUCED TIME OVER TOT CAUSED BY THE LONG TRANSIT TIMES NECESSARY TO REACH/RETURN FROM MISSION AREAS FROM PRESENT BASES IN NHA TRANG AND PLEIKU. NOT INFREQUENTLY, THE 6994TH HAS REFLECTED AS MUCH AS THREE HORS AND THIRTY MINUTES TRAVEL TIME FOR A MAXIMUM SEVEN HOUR MISSION. CONSEQUENTLY, SHOULD A MOVE OF DET 1, 6994SS, HE REQUIRED BY SEA AUTHORITIES OR BECOME FEASIBLE THROUGH OUR CUN VICLATION, DESIRE TO GO ON RECORD WITH THE

- 1. HAVE FOLLOWING COMMENTS TO REF BRAVO:
 - A. THUS FAR, ONLY INFO PROVIDED CONCERNING MOVE IS REF ALFA.
- B. WHILE THIS HQ DID NOT INITIATE A PROJECT TO RELOCATE DET

 1, 6994SS, SUCH A MOVE HAS MERIT AND SHOULD BE CONSIDERED FOR
 IMPLEMENTATION IRRESPECTIVE OF WHETHER 7AF AND MACV J-4 MAKE IT
 MANDATORY OR NOT. ARDF REQUIREMENTS IN SVN CAN HEST BE SATISFIED
 BY MOVE OF DET 1, 6994SS TO PHU BAI RATHER THAN CAM RANH BAY.

 THIS HQ COMMENTS REF ALFA WERE INTENDED TO MERELY POINT OUT THAT
 SINCE A MOVE WAS IMPLINENT, WE SHOULD PLAN TO MAKE THE MOST OF THE
 SITUATION TO ENHANCE THE OPERATIONAL POSTURE OF USAFSS ARDF
 RESCURCES IN SEA.
- C. THE MAJOR DISADVANTABE OF RELOCATION DET 1, 6994SS, AT

 CAM RANH BAY IS THE FACT THAT WE WOULD HE MOVING THAT UNIT'S STAG
 ING AREA EVER PARTHER SOUTH FROM THE AREAS IN WHICH THE MAJORITY

OF ITS MISSIONS ARE FRACCED. AS AN EXAMPLE, DET 1, 6994SS, WAS
FRACCED TO FLY SCRIIES IN THE FOLLOWING UTM BLOCKS DURING THE PERIOD
27 MAY - 2 JUN 67: (READ OR OF SCRIIES TASKED/UTM FRACE BLOCK):
7/YB, 1/AT, 14/BS, 14/ZB, 11/BR, 14/AZ, 7/ZV, 5/ZU, 2/BP AND 4/AN.
AS CAN BE NOTED, OF THE TOTAL 79 SCRIIES TASKED, ALL BUT 14 ARE IN
AREAS NORTH OF 14 DECREES LATITUDE (PARALLEL WITH PLEIKU). THERE—
FORE, CONSIDERABLE MISSION TIME IS REQUIRED FOR TRANSIT TO/FROM
TARGET AREA (AS MUCH AS ONE HOUR AND FORTY-FIVE MINUTES EACH WAY),
WITH RESULTING LOSS OF PRODUCTIVE TIME IN THE TARGET AREA, WITH
DET 1, 6994SS LOCATED AT NHA TRANG. LOCATING AT CAM RANH BAY
WOULD ADD FURTHER TO THIS ALREADY LENGTHY TRANSIT TIME.

D. CEVIOUSLY, ANY MOVE TO ANOTHER LOCATION WILL REQUIRE

RE_ESTABLISHMENT ACTIONS. HOMEVER, TAKE EXCEPTION TO USAFSS

INFERENCE THAT RE_ESTABLISHMENT AT PHU BAI WOULD BE MORE DIFFICULT

OR CAUSE MORE RELOCATION PROBLEMS THAN AT CAM RAMB BAY OR OTHER

LOCATION. FIRST OF ALL, ANY MOVE WILL REQUIRE RELOCATION OF ALL DET 1,

6994SS RESOURCES REGARDLESS OF WHAT LOCATION IS SELECTED FOR THE MOVE.

SECONDLY, TO OUR KNOWLEDGE, THERE ARE NO EXISTING CRITICOMM OR

ASA/USAFSS OPS_COMM CRTS AT CAM RAMB BAY. THEREFORE, COMPLETE NEW

CKT PATHS WOULD HAVE TO BE ESTABLISHED BEFORE DET 1, 6994SS MOVE

TO THAT SITE COULD BE MADE OR COMPLETE DISRUPTION OF THEIR CAPABILITY

TO PERFORM ARDF OPERATIONS WOULD BE INCURRED. THIS IS NOT TRUE OF

PHU BAI. SINCE USM_808 IS SITUATED AT PHU BAI, CRITICOMM CKTY

FROM THAT LOCATION, TO 6994SS, DET 2, 6994SS AND 509ROG (ACC), IS

ALREADY AVAILABLE. ALSO, AND OF FRIME IMPORTANCE, USM_808 HAS AN

OFS-COMM CKT TO USA-32 WHO, IN-TURN, HAS DIRECT OFS-COM CKT TO THE WARNING CENTER IN THE 7AF AFSSO COMPOUND. SECTION TWO OF THREE THIS-CKT CAN BE PATCHED TO PERMIT 699ASS USAGE, THUS WOULD PROVIDE ANOTHER IMMEDIATE COMM PATCH. ARDF OFFRATIONS COULD BE CONDUCTED FROM PHU BAI USING THESE COMMUNICATIONS EVEN IF SOLE USE USAFSS OPS_COMM CKTRY WERE NOT IMMEDIATELY AVAILABLE. IN ADDITION USM-808 OPS_COMM TO SAIGON ACC IS ALREADY PROPOSED AND IS RECEIVING FAVOR-ABLE CONSIDERATION. (REF D). THIRDLY, THERE IS NO DATA BASE AT CAM RANH BAY TO SUPPORT DET 1. 69948S; THERE IS AT PHU BAI. AS YOU ARE AWARE, USM-808 IS ONE OF THE MAJOR ASA TECH DATA BASE UNITS SUPPORTING OUR ARDF EFFORT IN SVN. IF DET 1, 6994SS WERE MOVED TO PHU BAI, THEN A REALIGNMENT OF TASKING WOULD IN ALL LIKE ... LIHOOD OCCUR IN WHICH DET 1 WOULD LOGICALLY HE ASSIGNED MSNS THAT usm-808 would predominately support while det 2, 6994SS would be-CEIVE TASKING ON MSN PREDOMINATELY SUPPORTED BY USM-60% AT PIEIKU. HENCE, RELOCATION OF DET 1, 6994SS AT PHU HAI, AND CORRESPONDING REVISION OF TASKING THAT WOULD OCCUR, WOULD GIVE ADDED HENEFIT OF EACH 699ASS DETACHMENT HEING COLLOCATED WITH THE ASA UNIT THAT WOULD PROVIDE THE MAJORITY OF THE TECH DATA APPLICABLE TO THEIR TASKED MSNS. CEOGRAPHICAL AREAS OF RESPONSIBILITY WOULD HE APPROXIMATELY AS FOLLOWS: (A) DET 1. 6994 (HUE/PHU BAI) - AREA NORTH OF 15 DECREES NORTH TO DMZ, COSTAL WATERS & LAOS; (B) DET 2, 6994 (PLEIKU) -AREA NORTH OF 12 DEGREES NORTH & SOUTH OF 15 DEGREES NORTH; (C) 6994 (SAIGON) - AREA SOUTH OF 12 DEGREES NORTH (REF D). FURTHERMORE SUCH COLLOCATION WOULD ENABLE OUR OPERATOR PERSONNEL TO RECEIVE PRE AND POST MISSION PRIEFINGS ON MISSION TOTS BY TECH DATA BASE

ANALYTICAL PERSONNEL FULLY FAMILIAR WITH TOT ENTITIES, THUS ENHANCING AIRBORNE MISSION SUCCESS. THIS ALSO HAS ADDITIONAL ADVANTAGE OF ALLOWing timely fusion with ground based intercept. Which should increase THE IMMEDIATE IDENTIFICATION RATE SIGNIFICANTLY IN THE NORTH AREA. FURTHER, THIS WOULD PERMIT FREE DISCUSSIONS BETWEEN DET OPERATOR PERSONNEL WITH USASA PERSONNEL WHO WORK DIRECTLY WITH THE TGTS ASSIGNED TO ARDY MISSIONS ON A DAY TO DAY BASIS. THIS WOULD ENSURE THAT THE MOST TIMELY, ACCURATE AND IN-DEPTH TECH DATA IS ALWAYS IMMEDIATELY AVAILABLE TO OUR DET ARDF OFERATIONS. IN ADDITION, IT WOULD ENHANCE TIMELY REPORTING TO CONSUMERS. AS YOU RECALL, THIS TYPE COLLOCATION WAS ORIGINALLY PLANNED. EXCEPT DET 2, 6994SS INSTEAD OF DET 1, 6994SS WAS TO BE AT PHU BAI: BUT THIS SUBSEQUENTLY FAILED TO MATERIALIZE. PARAS 1D AND 3 OF REF CHARLIE FULLY SUPPORT THE NEED FOR SUCH COLLOCATION. 2. WE REALIZE THAT RORMALLY IT IS IN THE HEST INTEREST OF ECUNOMY AND UNIT OPERATIONS TO HEMAIN AT AN ESTABLISHED LOCATION. HOWEVER. DUE TO THE EXTREME IMPORTANCE OF ARDF SUPPORT TO TACTICAL GROUND OPERATIONS IN SVN, BELIEVE A MOVE OF DET 1, 6994SS SHOULD BE GIVEN SERIOUS CONSIDERATION EVEN IF IT IS NOT FORCED BY MACY/7AF FOR REASONS STATED IN REF ALFA. OFFER THE FOLLOWING RATIONALE TO SUPPORT THIS CONTENTION: FINAL SECTION OF THREE

A. AT THE FRESENT TIME, GEOGRAPHIC LOCATIONS OF THE 6994SS

AND ITS DETS DOES NOT PERMIT BEST POSSIBLE FULFILLMENT OF NORTHERN

SVN AND LACS SORTIES DUE TO TRANSIT TIME REQUIRED TO/FROM TGT

AREAS. (PARA 6, REF CHÂRLIE SUPPORTS THIS STATEMENT). WE CAN EX
PECT MORE AND MORE REQUIREMENTS FOR SORTIES IN NORTHERN SVN AREAS AS

EVIDENCED BY THE RECENT MACY J-2 REQUIREMENT WHICH RESULTED IN REDISTRIBUTION OF COMPASS DART ACFT TO PROVIDE ADDITIONAL ASSETS TO PLEIKU. THEREFORE, FIRMLY BELIEVE THAT IF TAN SON NHUT, PLEIKU AND PHU BAI WERE MADE THE THREE 6994SS OPERATING LOCATIONS, WE COULD BETTER FULFILL MACY AND FIELD COMMANDER PRESENT AND ANTICIPATED FUTURE REQUIREMENTS FOR TACTICAL ARDF SUPPORT.

B. AS INDICATED IN PARA ONE C ABOVE, ESTABLISHMENT OF PHU BAI AS A 6994SS DET WOULD UNDOUBTEDLY REQUIRE A REVISION OF TARGET AREAS FOR WHICH EACH DET IS RESPONSIBLE BUT PROBABLY NO SIGNIFICANT REDISTRIBUTION OF COMPASS DART ACFT ASSIGNED BY UNIT. SUCH PELCCATION WOULD RESULT IN MORE EFFECTIVELY POSITIONED COLLECTION RESOURCES, PERMIT MORE TOT IN THE PRAGGED AREA PER SORTIE FLOWN, AND COLLOCATE FLYING UNITS DIRECTLY WITH TECH DATA BASE ELEMENTS THAT SUPPORT MISSIONS FLOWN. MACV J-2 HAS REPEATEDLY VOICED ITS DESIRE TO 6994 PERS TO LOCATE A COMPASS DART/DRILL PRESS UNIT AT PHU BAI FOR THESE REASONS (REF D).

C. ESTABLISHMENT OF 6994SS DET AT PHU BAI WOULD HAVE THE NEEDED BENEFIT OF PERMITTING THE TWO DRILL BRESS ACFT TO HE MAINTAINED/
STACED FROM THAT LOCATION ON A PERMENANT BASIS WITH COMPLETE
USAFSS SUPPORT THUS NEGATING NEED FOR CONTINUED SHUTTLING OF THESE
ACFT TO/FROM TAN SON NEUT. (MY OPS 01762/22 LPR 67, OPS 02175/2
MAY 67 REFERS).

1620

NNNN

CON; 128

May 128

HANDLE VIA COMINT CHANNELS ONLY

COMINT

CHANNELS

"AIR-FORCE - EYES ONL'

ATTACH 3

/ROUTINE/
FM PACSCTYRGN
TO USAFSS
INFO 6922SW
6994SS
6924SS

TDTG .170231Z

ZEM -

PROJECT CORONA HARVEST
DO NOT DESTROY

CHANNELS COR 17594 JUN 67.

SUBJ: COMPASS DART/ERTLL PRESS AT PHU BAT. REF CON

- 4. PACSOTYRON OPS5892,4 MAY 67(NOTAL 6924/6994).
- B. USAFSS OPD5 1949: 6 MAY 67 (NOTAL 6922/6924/6994).
- C. USAFSS OPD52074: 8 JUN 67 (NOTAL 6924).
- 1. I VISITED PHUI BAI THIS MONTH TO EXAMINE THE FEASIBILITY OF COMPASS DART/DRILL PRESS WORK LOCATION AT THIS BASE: THE FLIGHT LINE IS ALREADY TAXED TO THE BREAKING POINT AND CANNOT ACCOMPOSE ANOTHER AIRCRAFT OF ANY TYPE. HEAVY RAINS AND WATER RUN-OFF MAVE SEVERELY UNDERCUT EMBANKMENTS ALONG TAXI-WAYS, MAKING AIRCRAFT GROUND MOVEMENTS HAZARDOUS. UNLESS IMMEDIATE CORRECTIVE ACTION IS

TAKEN TO REBUILD THESE EMBANKMENTS; IT IS ONLY A MATTER OF TIME Doc.

BEFORE TAXI-WAYS COLLAPSE. ADDITIONAL PARKING SPACE IS NON-EXISTENT;

THE DNE DRILL PRESS AIRCRAFT AT PHU BAI IS BEING PARKED AT THE

END OF THE RUNWAY WITH ITS NOSE TEN FEET FROM THE RUNWAY. FLIGHT

LINE BUILDINGS ARE DILAPIDATED; NO HANGAR OR OUT-DF-WEATHER

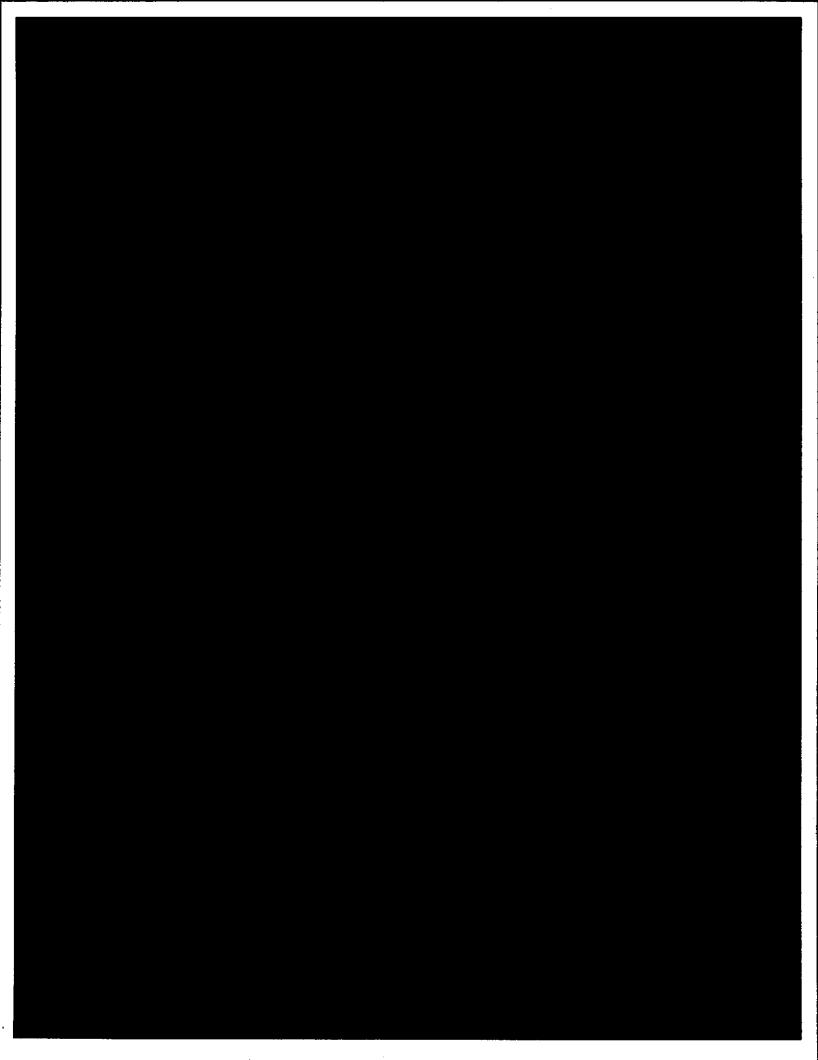
AIRCRAFT MAINTENANCE FACILITIES ARE AVAILABLE. TO ACCOMODATE OUR

AIRCRAFT AT PHUI BAI WOULD REQUIRE CONSIDERABLE FLIGHT LINE

CONSTRUCTION FOR OPERATIONS AND MAINTENANCE.

- 2. THE TROOP SUPPORT FACILITIES OUTLOOK IS EQUALLY DISCOURAGING. ARMY PERSONNEL ARE ALREADY CROWDED. THE MESS FACILITY WAS DESIGNED TO SUPPORT HALF AS MANY AS ARE NOW BEING SUPPORTED. ALL OTHER TROOP SUPPORT/RECREATION FACILITIES ARE EQUALLY OVER-TAXED.
- TING COMAPASS DART/DRILL PRESS DETACHMENT AT PHU BAI I CANNOT RECOMMEND SUCH A MOVE UNTIL COMPLETE SUPPORT FACILITIES ARE AVAILABLE IN VIEW OF THE ABOVE AND THE FACT THAT C-130 ACFT WILL BE PROVIDED FROM DANANG; IT MAY BE POSSIBLE TO CONSIDER DANANG AS AN OPERATIONAL LOCATION FOR COMPASS DART/DRILL PRESS. IF YOU CONCUR, I WILL EXPLORE THIS POSSIBILITY WITH PACAF.





DTG: 400PROJECT

FM USAPS DO NOT DESTR

TO AFSO USAF

AFSO PACAF

AFSO 7AF No \$\psi 40 8223 \quad 14 \quad 72 \quad 75 \

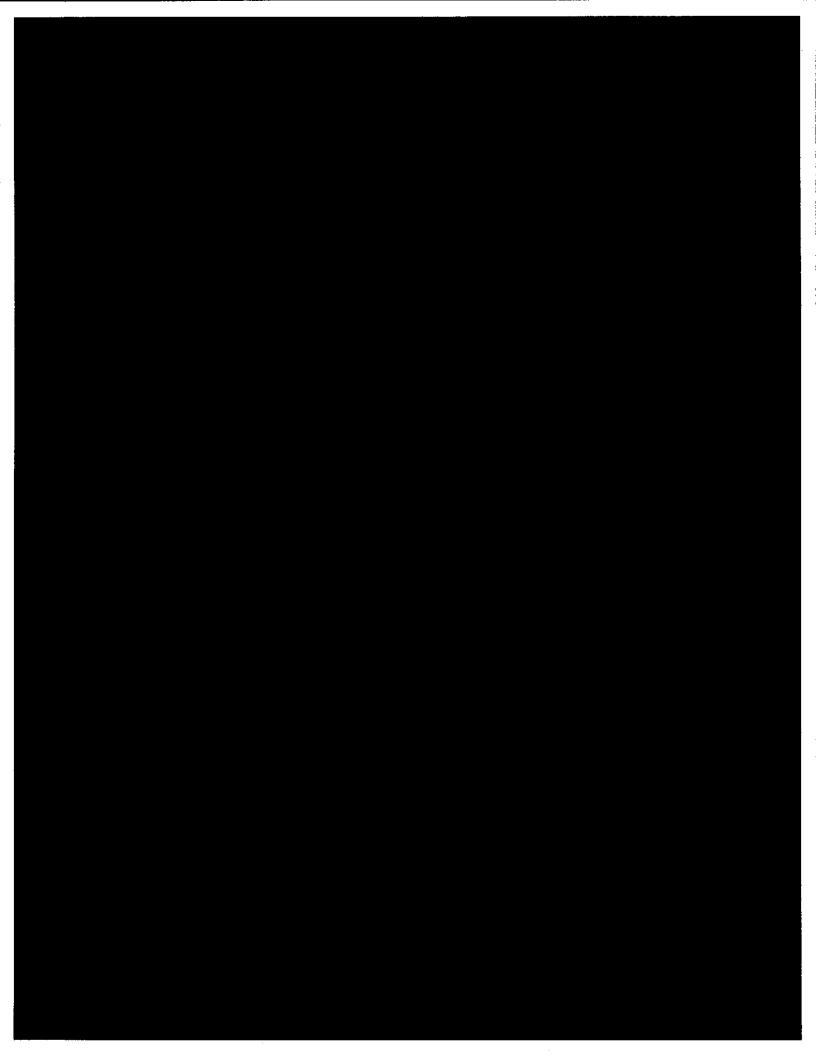
69225W

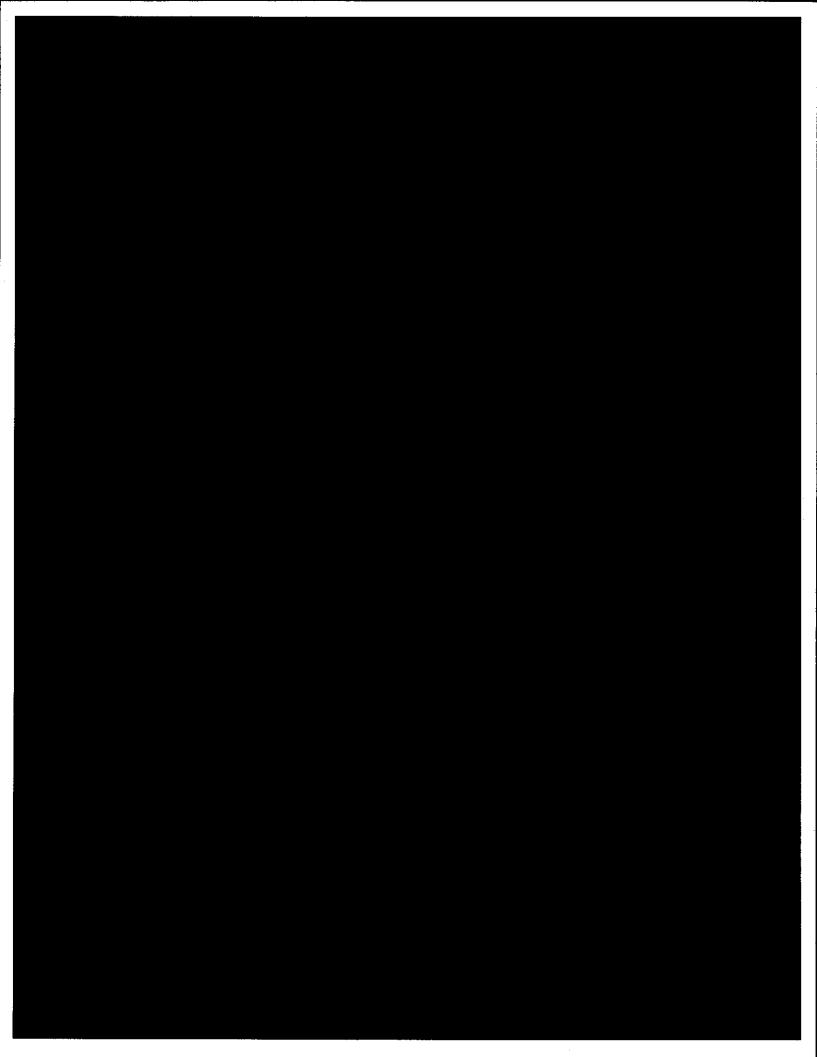
CHANNELS/AIR PORCE BYES ONLY/

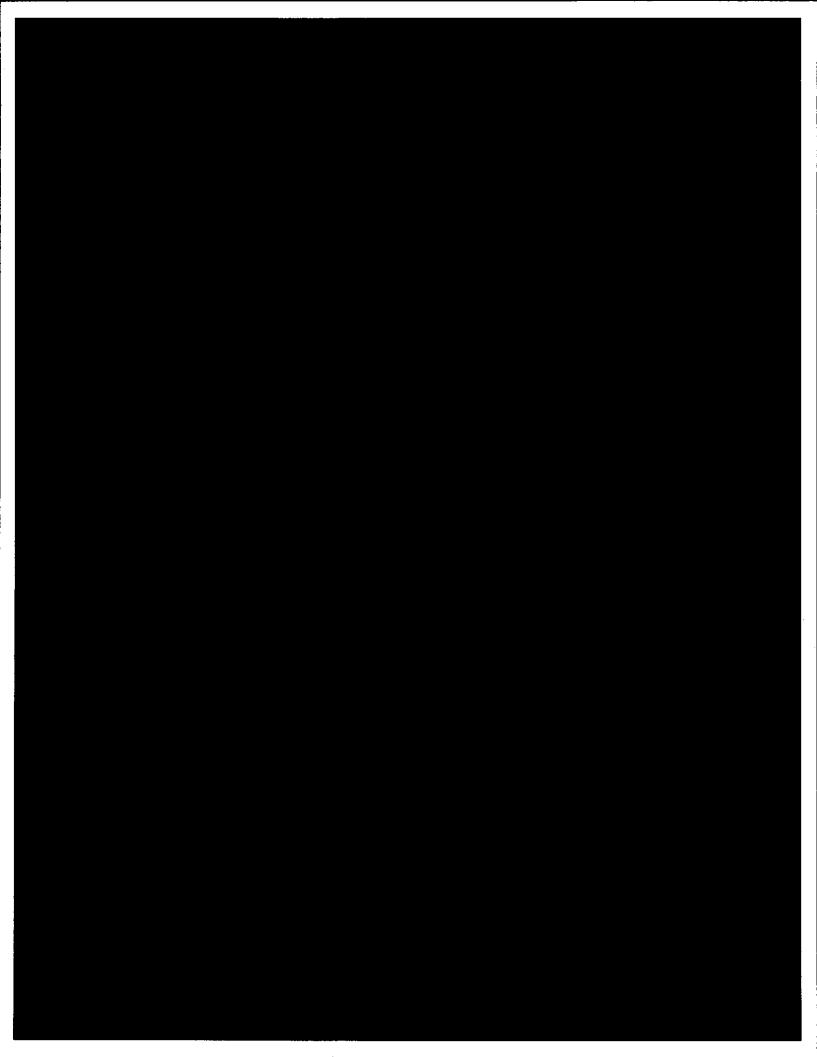
ODC 54507 JAN 67. ARSSO USAF: PASS TO AFRIC, AFXPDC, AND AFXOP. 6994SS: PASS TO GENERAL STAPLETON. REFERENCE PACAF MSG D/I 11031. DTG 131031Z JAN 67. AFSS FULLY SUPPORTS THE IMMEDIATE DEPLOMENT OF ONE OF THE TWO DRILL FRESS AIRCRAFT TO UDORN IN SUPPORT OF ARDF EQ MISSION IN THAILAND. THE IRILL PRESS AIRCRAFT WERE CRIGINALLY TASKED BY AF AND PLACED UNDER THE OPERATIONAL CONTROL OF NRV (C) FOR 120-DAY TEST. SUBSEQUENTLY, THEY REVERTED TO COMPLETE OPERATIONAL CONTROL OF THE TAF. WHILE IT IS RECOGNIZED THAT SOME OBJECTIONS MAY HE RAISED TO THE MOVEMENT OF ONE DRILL PRESS AIRCRAFT, FEEL THAT IT IS WITHIN THE PREROGATIVES OF CSAF TO SO DIRECT. IN FEHRUARY 1967, WE SILL HAVE SUFFICIENT PHYLLIS ANN AIRCRAFT WITH ACQUISITION POSITIONS CAPABLE OF MEETING THE MAJORITY OF DRILL PRESS INTERCEPT CAPABILITY. ADDITIONAL INTERCEPT CAPABILITIES WILL BE PROVIDED BY 10F168 ON 12 PHYLLIS ANN WHICH WILL REMOVE THE PACAF REQUIREMENT FOR 2 DRILL PRESS ATROPART BY 1QFY 66. LOOKING AT THE LONGER RANGE THAT REQUIREMENT. FEEL IT ESSENTIAL THAT A MINIMUM OF 2 PHYLLIS AND AIRCRAFT HE

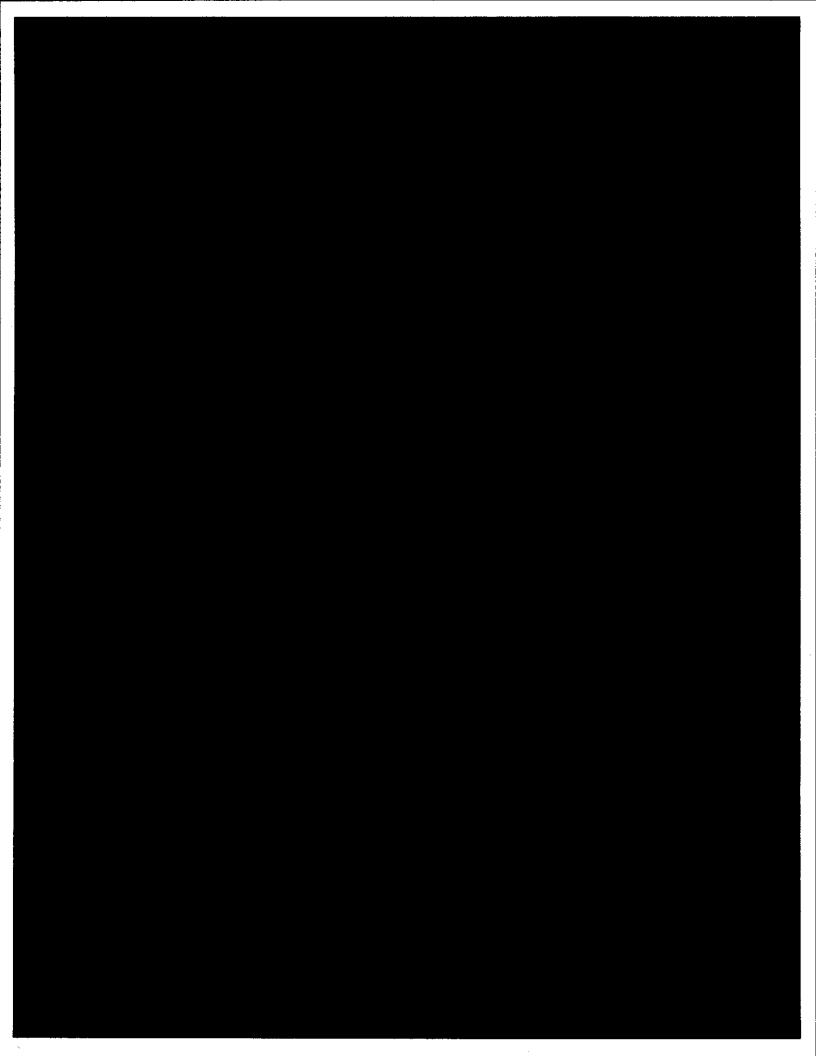
MADE AVAILABLE AS SOON AS POSSIBLE. FREI THAT PREFERABLY THE ENTREE OF CIA USAGE SHOULD BE USED TO OUR ADVANTAGE AT THIS TIME AND DIVERT 2 PHYLLIS ANN AIRCRAFT FROM WITHIN THE NEXT DELIVERIES WITHOUT HAVING ANY MAJOR EFFECT ON MACY. 2 DRILL PRESS AIRCRAFT SHOU LD THEN HE RETURNED TO ZI FOR IRAN/RETROFIT TO UPGRADED PHYLLIS ANN COMPIGURATION. ONE OTHER CONSIDERATION THAT MAY HE APPROPRIATE AT THIS TIME WOULD HE TO DIVERT PHYLLIS ANN IMPEDIATELY TO THAILAND PRIOR TO ITS ENTRY INTO MACV AREA. THIS WOULD ACTUALLY PROVIDE A RETTER CAPABILITY THAN: THE DRILL PRESS FOR ACTUAL SEARCH AND LOCATION OF INSURGENT AS YOU MAY KNOW, WE HAVE DET 4, 6922SW WITH AFSS TRANSMITTERS. CAPABILITY AT UDORN THAT CAN HE AUGMENTED BY EXPERTS IN ARDF ROLE FROM 6994SS. WITH DRILL HESS AID, THESE EXPERTS COULD ATTEMPT TO DEVELOP THE DATA BASE TO SUPPORT AN ARDY MISSION. THIS HOS STANDS READY TO PROVIDE ANY ASSISTANCE REQUIRED TO MEET THIS URGENT AF EW MISSIONA.

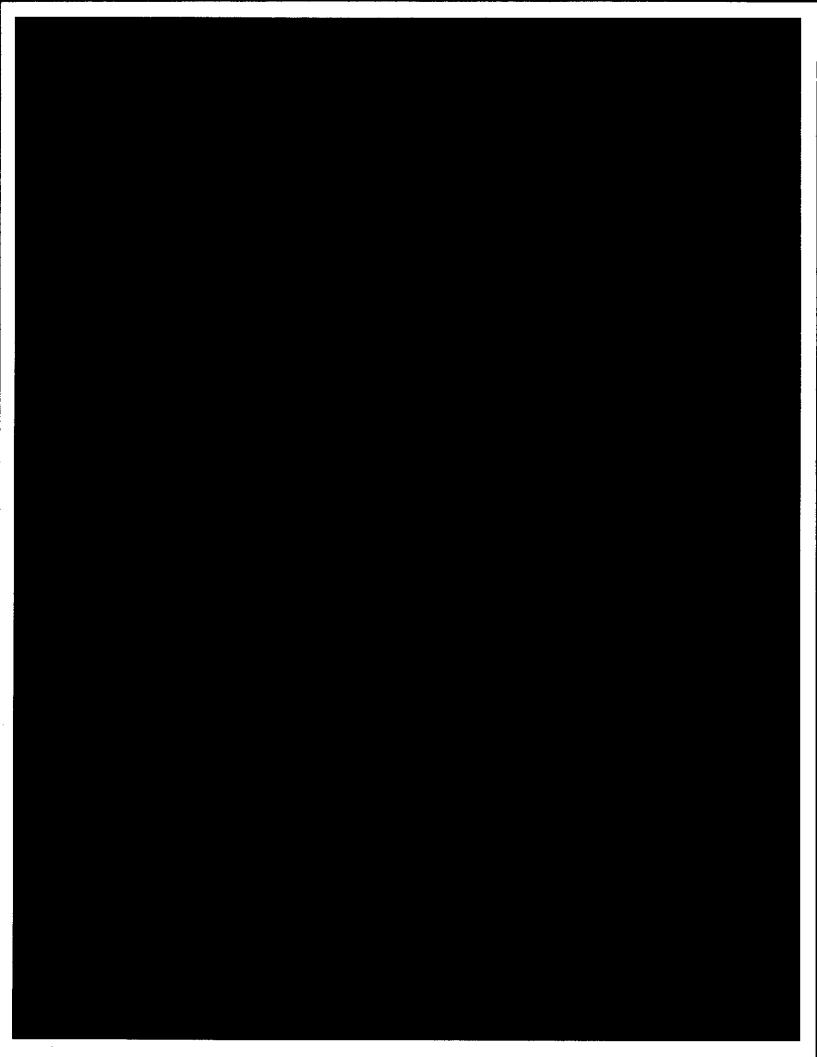
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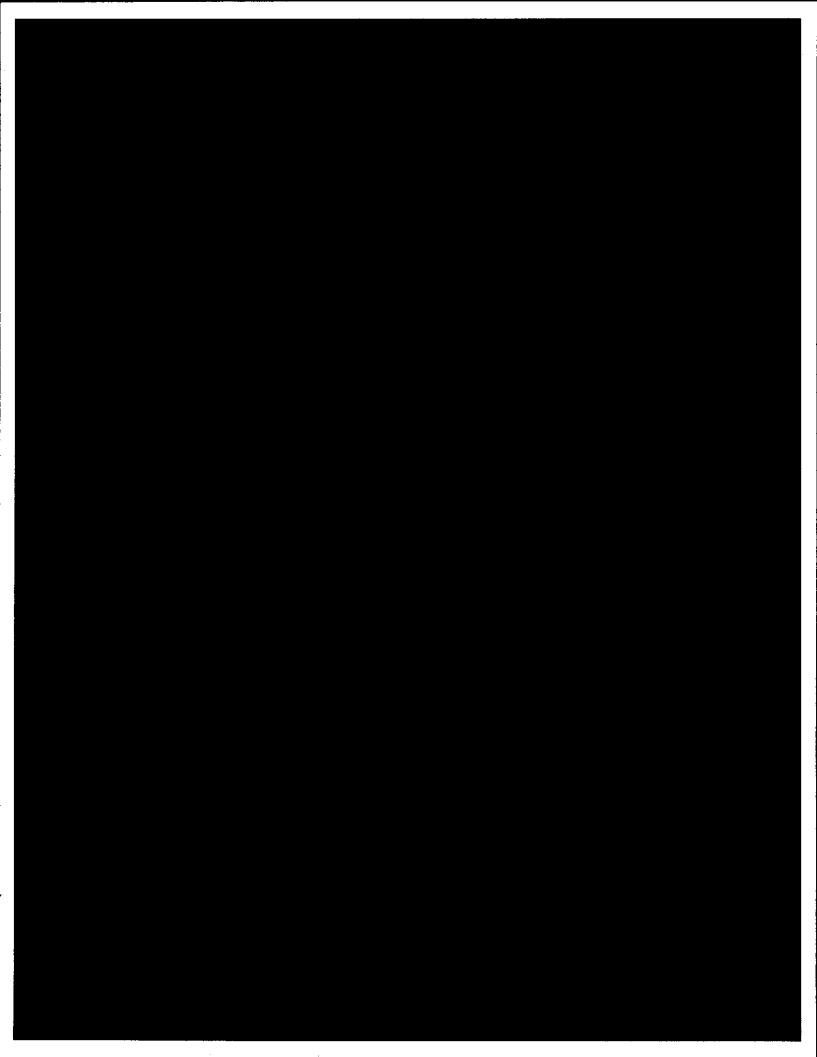


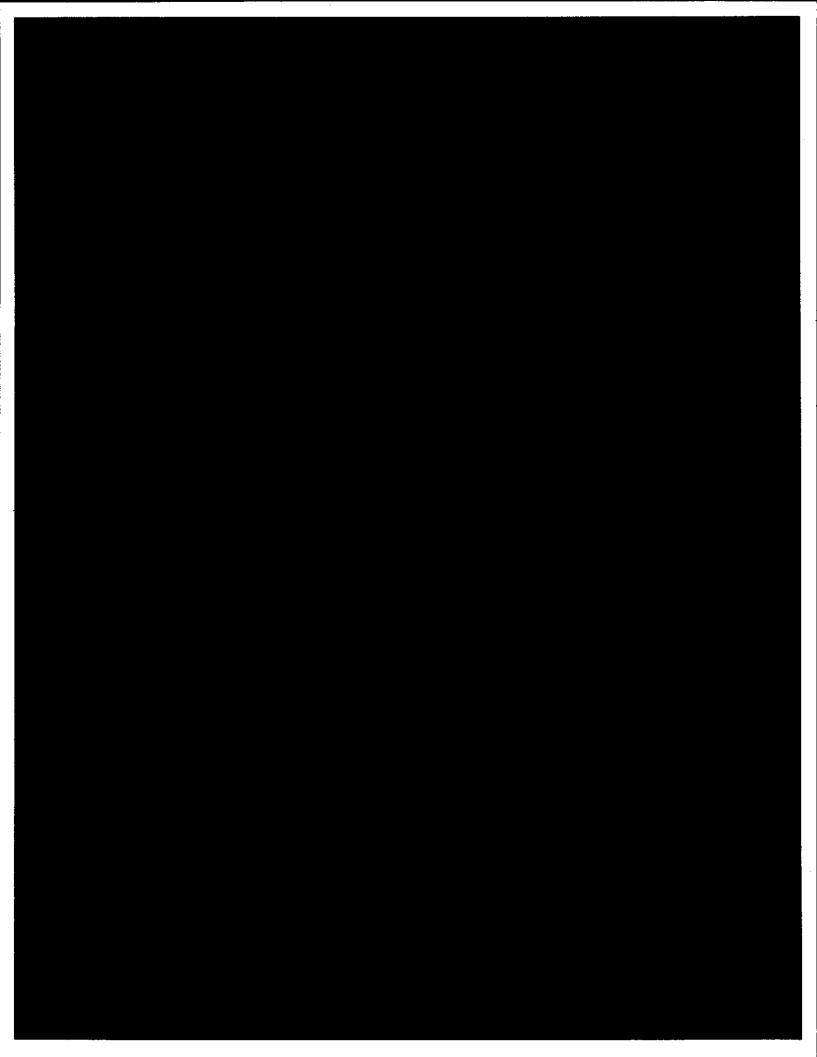


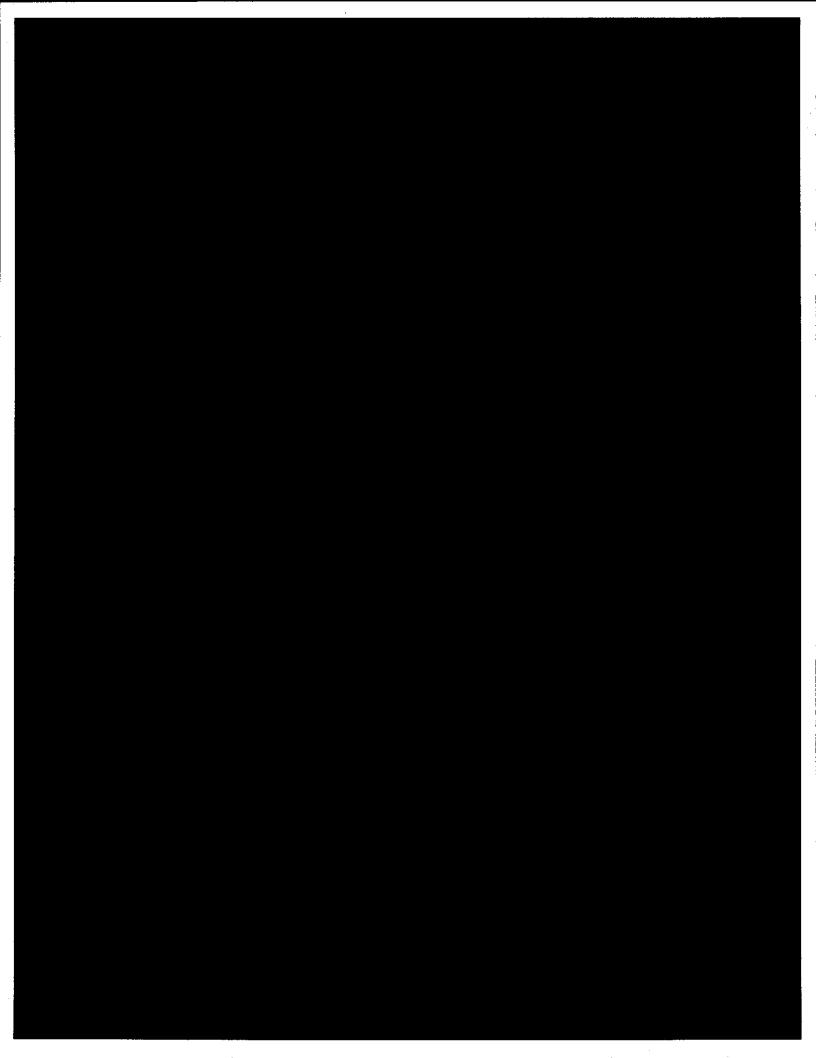


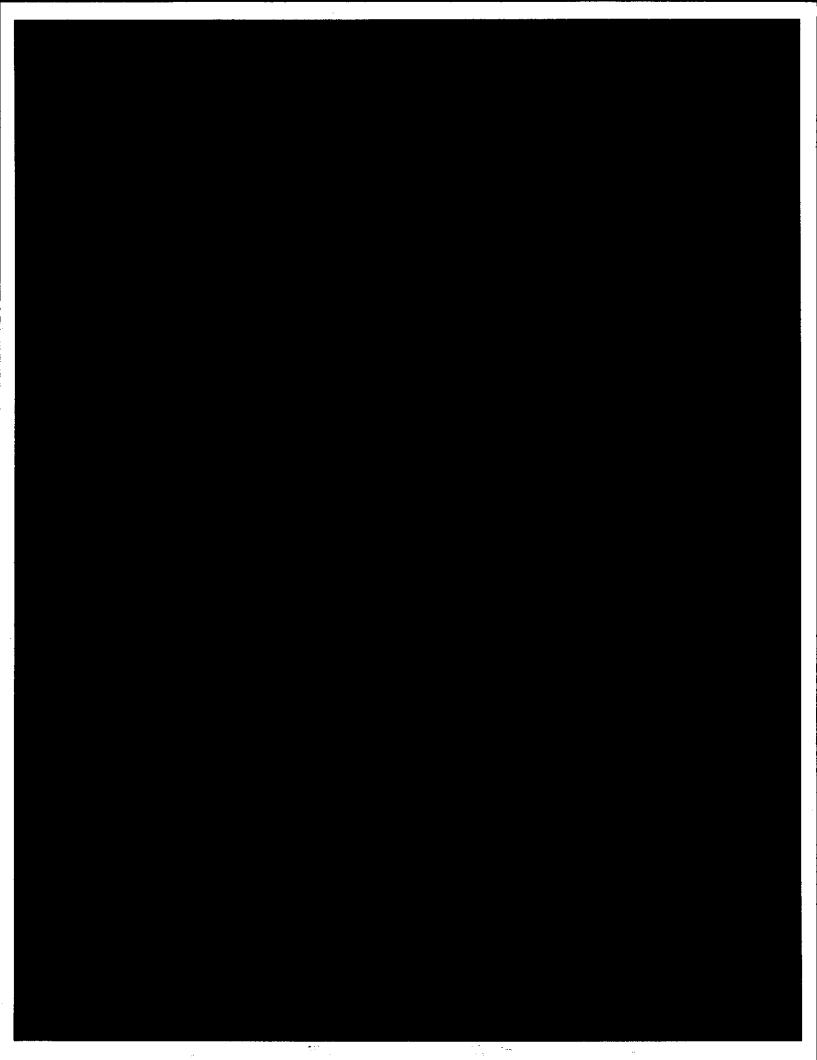


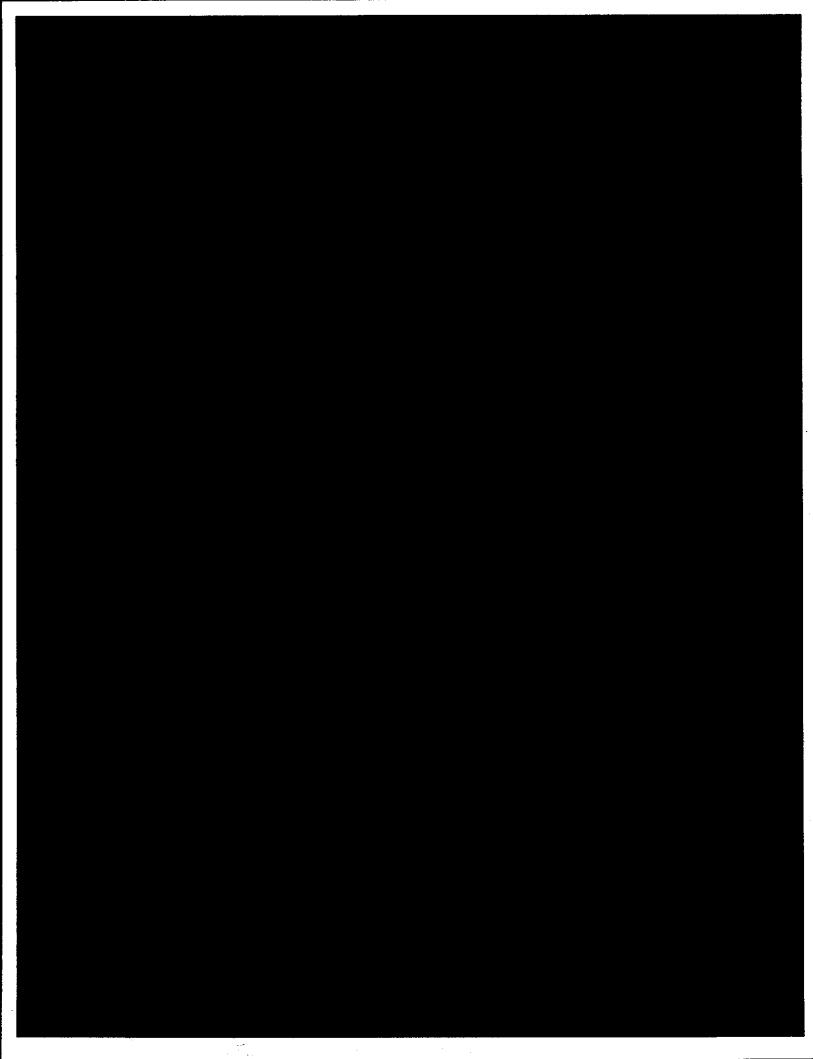












... Doc. 10

X

PRIORITY

PROJECT CORONA HARVEST

6994SCTYSQ TA

6922SCTING

No \$448228

CHANNELS COR 2/5/9 JAN 67

FOR COL SMALL FROM LT COL WALLANDER.

SUBJ: REQUEST FOR ASSISTANCE. THIS MSG IN TWO PARTS. PART I. REF
MY MAT 31706 31 DEC 66, SUP 31689 31 DEC, SUP 14331 14 JAN 67, PACSCTY
RGN MSG LOGMPA 00434 JAN 67 AND 6922 SW MSG MAT 00010 JAN 67. THE
ARD-18 IN COMMISSION RATE IS HEING SERIOUSLY AFFECTED BY LACE OF SUPPLY
SUPPORT AND UNACCEPTABLY SIOW REACTION TIME TO NORS AND RED ARROW
REQUESTS. AT ONE TIME THE REACTION TIME TO OUR TELEPHONE REQUESTS TO
SANDERS WAS AVERAGING 5 DAYS. RECENTLY WE HAVE HAD TO WAIT AS LONG AS
THIRTY DAYS AND THE AVERAGE HAS HEEN FIFTEEN. AT PRESENT, ACFT 044 AT
NHA TRANG HAS HEEN NORS FOR COORDINATE CONVERTER SINCE 3 JAN.
PART II. UR MAT 00010 JAN 67 INFORMED PACSCTYRGN OF OVERALL PROBLEM.
MY SUP 31689 SPECIFICALLY ADVICACINE THE SLOW REACTION ASPECT AND
REQUESTED ASSISTANCE. THERE HAS BEEN NO EVIDENCE OF ACTION TAKEN TO
ALLEVIATE THE SITUATION. ON 14 JAN MY SUP 14331 REQUESTED LATEST
STATUS ON NORS REQUESTS. TO DATE NO REPLY RECEIVED. I FEEL THAT

21 04402

Jan 67

1

4644

Col Wallander

ROBERT L WALLANDER, Lt Col, USAF Commander PRIORITY

COL WALLANDER

COL WALLANDER

1614

PACSCTYRGN MSG LOCMPA 00434 JAN 67 WAS COMPLETELY UNSATISFACTORY AND DID NOT REFIECT AN UNDERSTANDING OF THE URGENCY OF THE SITUATION. WE CANNOT MAINTAIN THE 28 AIRCRAFT PRESENTLY IN THEATER AND TWO MORE ARE EXPECTED MOMENTARILY. WE ARE MEETING OUR PRESENT IN COMMISSION RATE THROUGH CANNIBALIZATION, HOWEVER, THIS CANNOT CONTINUE MUCH LONGER. THE NUMBER OF MAJOR ARD-IS DISCREPANCIES JUMPED FROM 56 IN MOVEMBER TO 109 IN DECEMBER WITH AN INCREASE OF AIRCRAFT FROM 17 TO 27. OUR AIR ABORTS FOR ARD-18 INCREASED FROM 5 TO 21 AND OUR DAYS NORS JUMPED FROM 44 TO 97. SO FAR THIS MONTH WE ARE AIREADY 104 DAYS NORS. THE TREND IS CLEARLY EVIDENT. DURING THE PAST FIVE DAYS WE HAVE HAD 5 AIRCRAFT OUT FOR ARD-18 WHILE NONE HAVE BEEN OUT FOR AIRCRAFT GENERAL. FOUR AIRCRAFT REPRESENTS THE POSSESSED AIRCRAFT AND THIS RATE IS COMPLETELY UNACCEPTABLE. ADDITIONAL AIRCRAFT WILL ONLY COMPOUND THE PROBLEMS UNLESS IMMEDIATE SUPPLY SUPPORT IS FORTH-COMING AND THE REACTION TIME TO AND FROM THE FACTORY ON REPAIR PARTS IS CONSIDERABLY DECREASED: THEY MIGHT JUST AS WELL KEEP THE AIRCRAFT AND SEND THE PARTS. THE TECH REPS REPORTED TODAY THAT IT IS REGINNING TO APPEAR THAT THE SYSTEMS DEVELOP MAJOR PROBLEMS AFTER AROUND 600 HOURS OF OPERATION. AT OUR PRESENT AIRCRAFT UTILIZATION RATE THIS WILL OCCUR IN LESS THAN FOUR MONTHS AFTER ARRIVAL. I BELIEVE BOTH REGION AND COMMAND HAVE BEEN LULLED INTO A FALSE SENSE OF SECURITY

1611

BY THE INITIAL SUCCESS OF THE EQUIPMENT, AND ARE NOT REACTING TO OUR MESSAGES. IN ORDER TO INSURE COMPLETE AWARENESS TO PROBLEM, I AM INITIATING SPECIAL SUPPLY SUPPORT EMERGENCY ACTION SECTION IN DOMR TODAY. WOULD GREATLY APPRECIATE ANYTHING YOU CAN DO IN REEMPHAZING THE PROBLEMS OUTLINED IN YOUR MAT OOOLO JAN 67 AND MY SUP 31689 TO REGION AND COMMAND.

MAINTENANCE

PRIORITY

6994 SCTY SQ, TAN SON NUT BE VIETNAMORONA HARVEST DO NOT DESTROY

PACSCTYRGN, WHEELER AFFL HAWAII

6922 SCTY MG, CLARK AB, PHIL IMFO:

No. 0408229

FOR LOG-MP. INFO MAT. REF PSR MSG LOG-MP 12799 FEB 67. ORIGINAL PROCUREMENT OF COORDINATE CONVERTERS WAS FOR 57 UNITS. 53 UNITS FOR A/C/ 1 UNIT FOR GOODFELLOW INSTALLATION 3 UNITS FOR SHOP MOCK-UPS. HRAMA AUTHORIZED SANDERS TO ORDER 16 ADDITIONAL UNITS EARLY DECEMBER. ORDER PLACED ON 7 DECEMBER. DELIVERY ANTICIPATED 1 MAY 67. MEANWHILE 8 UNITS HAVE BEEN PULLED FROM PRODUCTION LINE TO ALLEVIATE CURRENT SITUATION. IN ADDITION, THE NECESSARY NEW PARTS TO EFFECT FIX IN 57 SYSTEMS HAS BEEN ORDERED WITH DELIVERY TO SANDERS SCHEDULED ON 1 MARCH. ALSO, 50 SPARE CLUTCHES AND 15 SPARE BRAKES HAVE BEEN ONDERED FOR COORDINATE CONVERTER: DIGITIZER MODULES WITH DELIVERY TO SANDERS SCHEDULED 26 FEB. SOLUTIONS TO THE RANDOM FAILURES STILL UNDER STUDY. 60 PERCENT OF FAILURES RANDOM. SANDERS ENGINEER ANTICIPATED AT THIS SITE TO REFECT MODIFICATIONS MID-MARCH. FAILURES WILL

4182

SMS Neyland/flg

EDWARD E. SMITH. Capt. USAF hief of Maintenance

19

SMS Neyland

CONTINUE AT PREVIOUSLY ESTABLISHED RATE UNTIL FIX IS IMPLEMENTED.

MODIFICATION OF DOPPLER TWO-SPEED SERVO STILL UNDERWAY.

DISCREPANCY RATE NOW ALMOST NIL. HOW-AVAILABILITY OF CERTAIN

ARD-18 ASSEMBLIES STILL HAMPERS MAINTENANCE BY INCREASING

CANNIBALIZATION AND MINIMUM TIME TO REPAIR. TYPICAL UNITS ARE

RECEIVER ASSEMBLIES. WE ARE LOOKING FOR AN AVERAGE OF 30 MINUTES TURE.

AROUND TIME. WE HAVE NO INFORMATION ON DELIVERY OF SUCH ITEMS.

SUGGEST YOU QUERY USAFSS. OR SANDERS ON PRODUCTS TO BE FURNISHED

UNDER RECENT FUNDING FOR SPARES. OTHER MAINTENANCE ACTIVITIES

ARE RATHER ROUTINE. NO SIGNIFICANT TREND HAS BEEN NOTED IN THE

PAST TWO MONTHS, OTHER THAN ITEMS DISCUSSED ABOVE. WE HAVE RECEIVED

BULK OF SSE. GP 1.

RRIOR: TY

6994SCTYSQ

6922SCTYWG

CHAMIELS COR 19452 JAN 67.

DURING VISIT IN HAROLD WING 699ATH WAS REQUESTED TO TAPE ACTUAL RADIO SIGNALS THAT ARE BEING FIXED IN ORDER TO GIVE SANDERS ASSOC ENGINEERS A FEELING FOR THE OPERATIONAL ENVIRONMENT ENCOUNTERED IN THEATER. THE TAPE RECORDING WILL HE MATCHED WITH THE ACTUAL PRINTER TAPE TO GIVE A COMPLETE PIGIURE. ADDITIONAL DATA WILL HE FORWARDED AS THE ELECTRONIC PROBLEMS ARE SOLVED. ALTHO TAPES AND PRINT OUTS ARE CLASSIFIED CONFIDENTIAL THEY WOULD HE USED ONLY BY CAT III CLEAPED PROPER AT SAMPERS. REQUEST PERMISSION TO SEND THEM DIRECT TO SANDERS IN CASE OF MAJOR EDDY.

> PROJECT CORONA HARVEST DO NOT DESTROY

No \$4\$823\$

1005= 1967

1

ROBERT L. WALLANDER, LT COL, USAF COMMANDER

HANDLE VIA COMINT CHANNELS ON

APPENDIX 1

HISTORY

DETACHMENT 1, 6994th SECURITY SQUADRON

HISTORY

OF THE

DETACHMENT 2, 6994th SECURITY SQUADRON

1 January - 30 June 1967

RCS: AU_D5 (USS-1)

This document contains information affecting the national defense of the United States within the meaning of the Espionage Laws (Title 18, USC, Sections 793 and 794) the transmission or revelation of which, in any manner, to an unauthorized person, is prohibited by law.

Approved by:

SIGNED

CARL E VINNER

Capt, USAPROJECT CORONA HARVEST

DO NOT DESTROY

No \$408231

FOREWORD

This historical study is a record of Detachment 1, 6994th Security Squadron, covering the period 1 January - 30 June 1967. All references to dates are within this period unless otherwise indicated.

The majority of the information contained herein was taken from files and records maintained at the unit. Additional information was gained from personal interviews with members assigned to the unit.

All suggestions and comments should be directed to the Unit Historian who is responsible for preparing this report.

RICHARD H. WALL, SSgt, USAF Unit Historian

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II	ARDF OPERATIONS	
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	SIGINT Collection	3
II	I LOSS OF AIRCRAFT 201	5

CHRONOLOGY

Date	Event
1 Jan 1967	Detachment 1, 6994th Security Squadron became fully operational.
3 March 1967	The first aircraft arrived for the "Y" position.
9 March 1967	Aircraft 201 was lost.
11 March 1967	Aircraft 201 was located.
6 May 1967	Detachment 1 was recommended for the Air Force Outstanding Unit Award.
1 June 1967	The operations administration was relocated.

CHAPTER I _ MISSION AND ORGANIZATION

Activation

Detachment 1, 6994th Security Squadron was activated on 1 July 1966 to conduct Airborne Radio Direction Finding (ARDF) operations against low powered enemy ground transmitters in South Vietnam. Fixes obtained are immediately passed air to ground and in post electrical reports for use by tactical combat elements and are of very high value to these commanders in determing the location and maintaining surveillance of enemy units.

Organization

(U) By 1 January 1967 the unit was fully operational, the various internal functions had been organized, and the basic facilities had been acquired or constructed. The administrative and maintenance functions were located on Nha Trang AB, Republic of Vietnam. The Airborne Operations Section and communications facilities were co-located with the 313th RR Battalion (ASA) at Camp McDermott, adjacent to the air base.

The mission and organization of Det 1 remained basically unchanged from the previous period although the arrival of additional aircraft and personnel did allow for expansion of the ARDF mission. On 3 March 1967 the first aircraft with a "Y" DF acquisition position was declared operational. Additional aircraft with the same equipment arrived and were declared operational as follows:

AIRCRAFT	DATE
42-0980	3 March 1967
45-50925	6 March 1967
43-49491	9 March 1967

42-00665	16 March 1967
43-48702	31 March 1967
43-15133	12 April 1967
42-23882	14 April 1967

with these additional seven aircraft the unit reached its full complement of 15 aircraft and began to fly an average of 79 sorties each week, mostly in the II Corps Tactical Zone.

In early June 1967, part of the operations section, namely the operations administrative section, the OIC and NCOIC, the Training Section, and the two flights' working areas, was moved into an adjacent quonset but within the 313th RR Battalion compound. The original quonset is now used for the communications center and the analytical technical support and reporting functions. Two training positions originally installed in the first quonset were later moved into the second building. The additional space and the subsequent reduction in noise and conjection enabled all of the sections to perform their duties in a more efficient manner. It also provided room for briefing visitors without disturbing the normal daily operation.

CHAPTER II - ARDF OPERATIONS

SIGINT Collection Facilities

Although the original concept of operations specified that the "Y" position would be used to tip off the "X" position, in actual operations there were deviations. Since the "Y" position utilizes a long wire antenna, its reception capability was far superior to the doppler - antenna - fed "X" position. Therefore, the great majority of targets picked up on "Y" could not be transferred to "X" because they were normally not in the mission area. The "X" position with its oscilloscope, which enables the operator to view signals within 2,000 KCS of the setting, acquired the targets in most instances. The "Y" position was used as an assist to "X" - copying the traffic, working the radios, and accomplishing all the encryptions on the hestia pads for passing fixes to the ground. During active periods, these by themselves were found to be full-time functions. SIGINT Collection

The unit began keeping more detailed data to record its accomplishments and also to identify areas for improvement. Noticeable reductions were accomplished in the handling time before fixes were passed air to ground, the number of errors in the air-to-ground reports, and the number of errors in post mission fix reports. The average handling time between the last line of bearing and receipt of the fix by the ground station was about 20 minutes by June 1967. The number of errors in all reports was negligible - less than 1 per cent. These improvements can be attributed to the increased experience of the reporters and operators and to the emphasis placed in these areas by supervisory personnel.

Feedback from consumers for the benefit of 361st TEWS aircrews and our own personnel was a recurring problem. Despite efforts to obtain

feedback data from various Army and Navy unite, response was minimal. No systematic procedure for feedback could be established and any information was strictly on an irregular, ad hoc basis. Coordination with the 6994th Security Squadron, Det 2 and Army ARDF units revealed that this particular problem was widespread.

On 6 May 1967, Detachment 1, 6994th and the 361st Tactical Electronics Warfare Squadron were recommended for the first award of the Air Force Outstanding Unit Award for Exceptionally Meritorious Achievement from 1 July 1966 to 31 May 1967. During this period numerous congratulatory letters from General Westmoreland, COMUS MAC-V, General Norton, Commander 1st Cavalry Division (Airmobile), and General Momyer, 7th Air Force commander. This unit also received a letter commending the excellent cooperation and assistance in Operation Blackjack 25. This was a special COMINT Development Mission involving ARDF aircraft and elements of the 403rd Radio Research, Special Operations Detachment (Airborne), 5th Special Forces Group. The operation involved the passing of tip-offs, ground to air and air to ground and very close coordination between the ARDF aircraft and the Special Forces troops on the ground. The operation covered the period 15 April to 26 May 1967. (On 19 May, one fix reported by the unit resulted in 117 North Vietnamese killed in action and a valuable storage of rice confiscated.) The following major operations were given close tactical support by the unit: Operations Greely, Fershing, Sam Houston, Francis Marion and Bird. Numerous other ground operations of smaller scope and shorter duration were supported.

CHAPTER III - LOSS OF AIRCRAFT 201

On 9 March 1967, Aircraft 43-49201 departed Nha Trang at 1355L. It was to have been a normal Phyllis Ann mission returning to Nha Trang in approximately seven hours. From evidence found at the crash site everything was going along normally until the seventh target of the day was picked up. Target golf found on the navigator's map proved to be a Market Time target. Hand transcribed traffic had been copied on this target at 10132. When the aircraft was two hours overdue appropriate action was taken. At 2300 hours the 361st TEWS contacted Air Sea Rescue and informed them that 201 was overdue at Nha Trang. Extremely poor weather, which severely hampered visual reconnaisance of the area, made it virtually impossible to locate the supposedly downed aircraft. One C-130 Rescue Aircraft stayed in the area as long as possible and reported negative results. The aircraft's main job was to listen for signals from survival radios carried by crew members. On 11 March 1967, after extensive search operations had been conducted, an Air Force forward air controller located the downed aircraft at 0945 local time at coordinates BS 820235. Infantry units of the 1st Air Cavalry Division arrived at 1300 local time and secured the area around the crash site. An immediate sweep of the area was made and all classified material found was properly secured.

Technical Sergeants Donald A. Bernard and Thomas Echols assigned to Det 1 volunteered to be a part of the rescue team which left Nha Trang to try to secure the downed aircraft and the classified material on board. On arrival at the scene it was revealed that people, probably Viet Cong, had already been in the immediate area. The bodies of the downed aircrew

members had been searched and several articles had been taken including watches, rings and wallets. The survival equipment each man was carrying along with his boots were also missing. Further investigation of the scene showed many of the Viet Cong were barefooted and poorly equipped. From the numerous leaflets covering the area it is believed the Viet Cong may have thought it was a leaflet dropping, psywar mission because none of the equipment inside the aircraft was disturbed in any way. The constant threat of enemy hostile action, coupled with heavy fog and the coming of nightfall limited time in the area. When it was no longer possible to remain in the area, a fifty-pound charge of heavy explosives was placed in the aircraft and it was blown up. This secured the rest of the aircraft and the classified material that was not removed. For their actions during the operation, both Sergeants Bernard and Echols were recommended for the Bronze Star with "V" for Valor. (This award was subsequently approved at Headquarters USAFSS.)

It is presumed that the aircraft was downed by enemy fire. The pilot and co-pilot were the most competent assigned. The flight mechanic was a highly capable veteran and was an instructor mechanic. The navigator was also an instructor. One of the radio operators was a flight commander and another of the radio operators was an instructor with over sixty missions. The entire crew was among the best assigned and capable of handling any airborne emergency. Results of the autopsy later showed the two radio operators and the navigator had metal fragments foreign to the aircraft in their todies. This confirmed the presumption that the aircraft was downed by hostile ground fire. The following is a list of

the recovered items from the aircraft:

1 422 Oscilloscope

Mission Map Area

1 Receiver Control

Tech Support Data Sheet

1 Buffer Logic Assembly

AFTO 781, Part I

G Modules

Blank Operators' Logs

2 ID 250 Compasses

Blank Market Time Reporting Logs

2 Gap Servo Pax

Hestia Pad CP150067 Reg 1

Crew Notebook

The aircrew members from Det 1 were:

TSgt Raymond F. Leftwich, AF17095652

AlC Charles D. Land, AF17634813

AlC Daniel C. Reese, AF13795155

APPENDIX 2

HISTORY

DETACHMENT 2, 6994th SECURITY SQUADRON

HISTORY

OF THE

DETACHMENT 1. 6994th SECURITY SQUADRON

1 January - 30 June 1967

RCS: AU_D5 (USS_1)

This document contains information affecting the national defense of the United States within the meaning of the Espionage Laws (Title 18, USC, Sections 793 and 794) the transmission or revelation of which, in any manner, to an unauthorized person, is prohibited by law.

Approved by:

SIGNED

JAMES D. CAGLE

Major, USAF Commander

PROJECT CORONA HARVEST

No \$408232

FOREWORD

This historical summary of the background and operations of Detachment 2, 6994th Security Squadron, has been written to include unit activities from 1 January - 30 June 1967.

All information was taken from files, PADS, and correspondence maintained within the unit.

All suggestions and comments should be directed to the Office of Information.

WILLIAM J. PORTER, 1st Lt, USAF Unit Historian

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	Tasking	2
	Collection	2
	Reporting	2

CHRONOLOGY

Date

9 April 1967

Event

It William J. Porter replaced Lt Thad A. Wolfe as operations officer of Detachment 2, 6994th Security Squadron.

29 April 1967

"Integrated Crew" system began in conjunction with the 362d TEWS.

CHAPTER I - MISSION AND ORGANIZATION

Organizational Changes

No major organizational changes occurred during the reporting period. However, several organizational changes were effected.

Internal Organizational Changes

- (U) On 9 April, Lt William J. Porter replaced Lt Thad A. Welfe as Operations Officer. Lt Porter arrived from Tan Son Nhut AB in TDY status. He became PCS on 20 June 1967.
- On 29 April, the unit began an "Integrated Crew" system in conjunction with the 362d TEMS. Under this system, the USAFSS crew members were scheduled consistently with one navigator which, in effect, created one permanent crew.
- The Integrated Crew system destroyed the Administrative

 Flight Organization, therefore, to replace Flight Commander functions,

 the Flight Scheduling section was beefed up and made a permanent

 position. Additionally, a Duty Supervisor position was created to

 supervise the daily operations functions of details, crew pickups,

 check flights, etc. Manned by the senior NCOs on a rotating basis,

 this post inherited the responsibilities that had formerly been assigned

 to the Flight Commanders.

CHAPTER II - TASKING AND COLLECTION

Tasking

In January average tasking was four (4) missions per day. These missions were fragged into the Laction (Tigerhound) and DMZ areas. By June the unit received a full complement of aircraft. The average tasking in June had increased ten (10) missions per day. These missions covered all of I Corps and Tigerhound, and portions of the Steel Tiger and Talley Ho areas.

The majority of the missions accomplished during the period of this report were for continuity and development. Some were, however, tasked as Close Tactical Support (CTS) missions in support of specific ground operations. During January 41 missions were accomplished in support of operations Pickett and Prairie. As of 30 June 450 missions had been flown in CTS for 25 ground operations. Collection

The monthly fix total in January was 465. By June this had increased to 2,000; due mainly to the increased number of aircraft and missions. Operator experience was also a contributing factor. The fix-per-mission rate increased from 3.9 in January to 6.1 in June. The total fixes for the period were 7,652.

The identification rate increased as Army and Air Force improved the Tech Data system. In January identification was .04 per cent against 26 per cent in June.

Reporting

Only format changes were experienced in air-ground and final fix reporting during the period. The quality increase, however, was quite evident.

The air-ground reporting error rate dropped to zero, however, the fix-pass rate increased from 70 per cent to 92 per cent.

The time lapse in plotting and reporting a fix a/g dropped from a high of 60 minutes (average) in January to 25 minutes (average) in June.

The final fix reporting error rate dropped to zero in June, however, a significant increase in the number of reports issued occurred.

APPENDIX 3

HISTORY

AIRBORNE RADIO DIRECTION FINDING COORDINATION CENTER

HISTORY

OF THE

AIRBORNE RADIO DIRECTION FINDING

COORDINATION CENTER

(ACC)

1 January - 30 June 1967

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MSgt, USAF Operational Historian

PROJECT CORONA HARVEST DO NOT DESTROY

No. \$448233

CHRONOLOGY

Date

11 May 1967

March 1967

Event

Proposal was made to centralize the ARDF control and establish it as a function of MACV.

Project Mustard wideband intercept was incorporated into the ARDF support program as a supplement to fix identification methods.

CHAPTER I - MISSION AND ORGANIZATION

Mission

The mission of the Airborne Radio Direction Finding Coordination Center (ACC) was to provide for the coordinated management of the ARDF program in South Vietnam, and other areas as directed by COMUSMACV.

Organization

The ACC was collocated with the 509th Radio Research Group (RRG) at Tan Son Nhut AB, Vietnam. The activity was established on 1 July 1966 by agreement between the Commanding Officer, 509th RRG and the Commander, 6994th Security Squadron. It is staffed by members of both organizations.

The ACC on 30 June 1967, consisted of 26 personnel.

There were 14 U.S. Army and 12 USAF personnel assigned. No formal recognition of the ACC and its assigned personnel had been achieved.

The actual existence of the ACC was still on an ad hoc basis as formulated by the agreement of the commanders of the 509th RRG and the 6994th Security Squadron. (See Chapter I).

The ACC was divided into three sections: Tasking, Reporting, and Administrative, as follows:

TASKING. This section converted true unit designators targeted by MACV J2 into cryptologic language and tasked Army aviation and Air Force units with sorties to be flown during the tasking period.

REPORTING. The Reporting section compiled all incoming ARDF Recovery Reports into a comprehensive summary for dissemination to consumers. ARDF Recovery Reports were being received in the ACC via

CRITICOM and OPSCOMM circuits from ARDF units. There were three Air Force OPSCOMM circuits and one Army circuit on 30 June 1967. Several additional OPSCOMM circuits were projected to be installed in the future.

ADMINISTRATIVE. This section performed all administrative functions required and provided guidance and direction to the Tasking and Reporting sections.

Considerable discussion evolved around the function of the ACC and its role in ARDF management. In general, it was felt that more effective control and utilization of ARDF resources could be achieved by centralizing the ARDF control and establishing it as a function of MACV. Subsequently, a staff study* of the subject was conducted by the Reconnaissance Branch of MACV, and its proposals presented to the Chief of Staff, MACV-J2. The study concluded that a centralized system of control (the present ACC) was probably the most effective and should be expanded to assume more of the functions presently being accomplished by MACV-J2. The 6994th Security Squadron and the 509th RRG were in concurrence with the MACV proposal. However, the 6994th Security Squadron desired that the ACC should be headed by a MACV staff officer. Both the NSA Pacific representative, Vietnam (C), and the 509th RRG opposed this idea. The proposal was presented to Major General McChristian on 11 May 1967. The General disapproved any change in the existing system. He said:

"MACV-J2 will always establish ARDF target priorities and determine weight of effort to be allocated to given areas.

^{*} This study considered three methods of ARDF control and contained many points of interest. (See document 1).

It is up to the 'Operators,' Air Force and Army to determine all else on basis of tech data, etc., via ACC. If ever he gave ACC any of his above responsibility, it would be headed by J-2 MACV officer."

strength, size, productivity, and equipment. Growing demands of expansion have resulted in the allocation of floor space to the ARDF Coordination Center at the new 509th Radio Research Group headquarters building, under construction at Whitebirch Station within the confines of the Joint General Compound. The move to the new location was scheduled for approximately 1 September 1967. Upon completion of the move, additional OPSCOMM circuits with subordinate Army units were projected to be installed. More timely input of ARDF Recovery Reports to the ACC was expected to be produced with the added circuits. Also in the near future and probably after the move to Whitebirch Station, the ACC was to receive a Litton Computer for automatic data processing of ARDF information. Data processing specialists of the U.S. Army were already in country awaiting arrival of the computer.

CHAPTER II - TASKING

The ACC was tasked with receiving general ARDF tasking from MACV-J2 and translating it into specific ARDF cryptologic tasking. The MACV tasking was, in actuality, an outline of ARDF requirements that was formulated based on the consumer requirements and the ARDF resources available. The ACC was responsible for insuring that the resources were utilized to the maximum effectiveness in fulfilling these requirements. To achieve this, they established specific time-over-targets; selected specific Radio Arbitrary Designators (RAD's) for designated priority targets; arranged for the proper distribution of technical data by the appropriate Data Base; monitored and managed the distribution and assignment of HESTIA pads to the proper subscribers of the air/ground communications nets; and forwarded tasking to the U.S. Army aviation units and the 7th Air Force, TACC. (See Chart 1).

CHAPTER III - PROCESSING AND REPORTING

The ACC received ARDF recovery reports issued by the units accomplishing the ARDF missions and prepares the Daily ARDF Fix Report for dissemination to consumers. No significant changes in these procedures occurred during this period.

CHAPTER IV - ACCOMPLISHMENTS

During this historical period, several noteworthy

managerial improvements were implemented in the ARDF program.

ARDF Recovery Reports were re-evaluated and revised

into a more comprehensive and readily usable vehicle. The revised

reports reduced high precedence message transmissions by over 130,000

groups monthly.

Fix requirements were redefined to eliminate unnecessary

information and to render a more qualitative input via Recovery Reports,

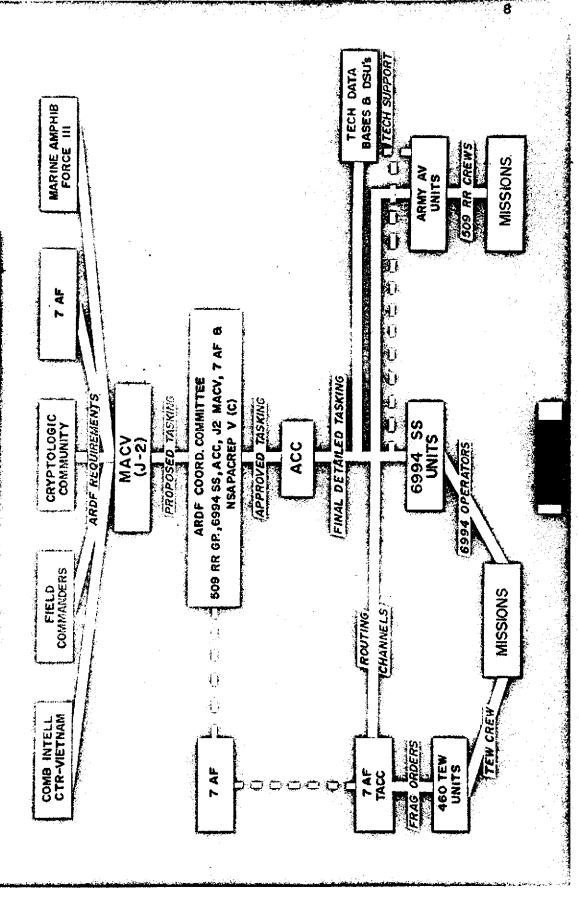
thus enhancing the overall value of the outgoing ACC ARDF Fix Report.

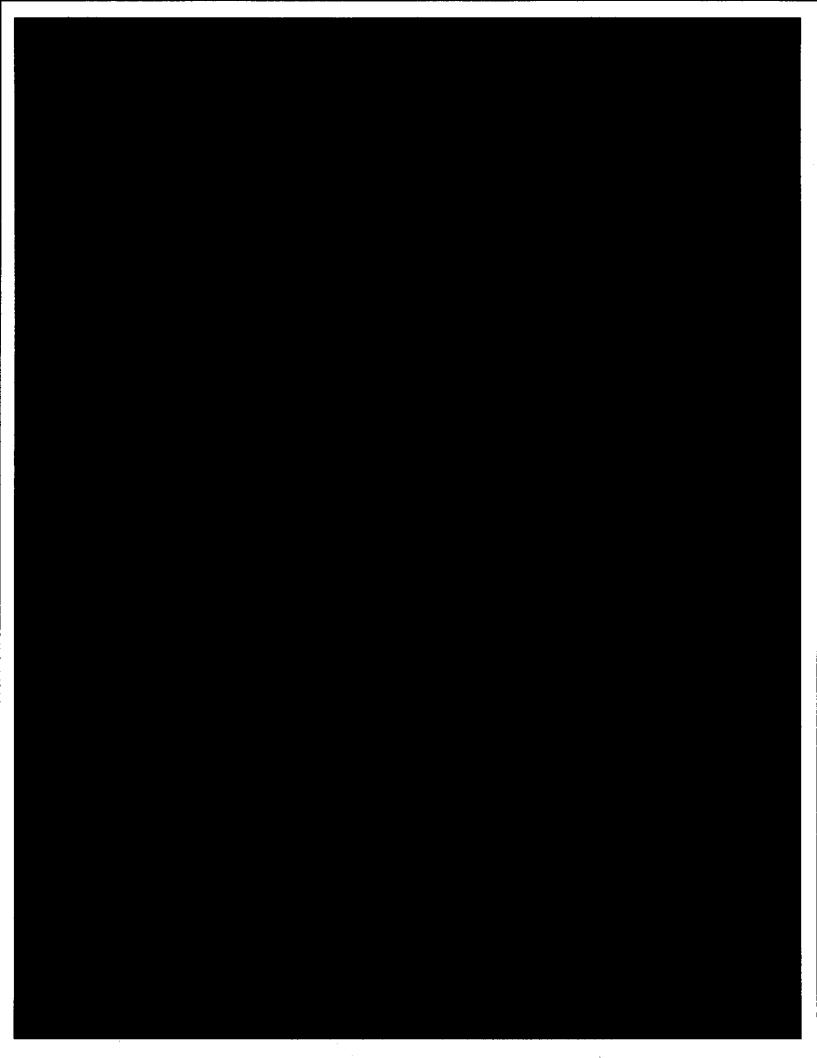
In March 1967, Project Mustard wideband intercept was incorporated into the ARDF support program as a supplement to fix identification methods. The project was located at the 330th Radio Research Company in Pleiku. Under its concept, all identified wideband intercept is matched with as many unidentified ARDF fixes as possible. On the basis of these correlations, many unidentified fixes contained in ARDF Recovery Reports were identified. The correct identifications were then passed on to all recipients of the ACC ARDF Fix Reports on a daily basis.

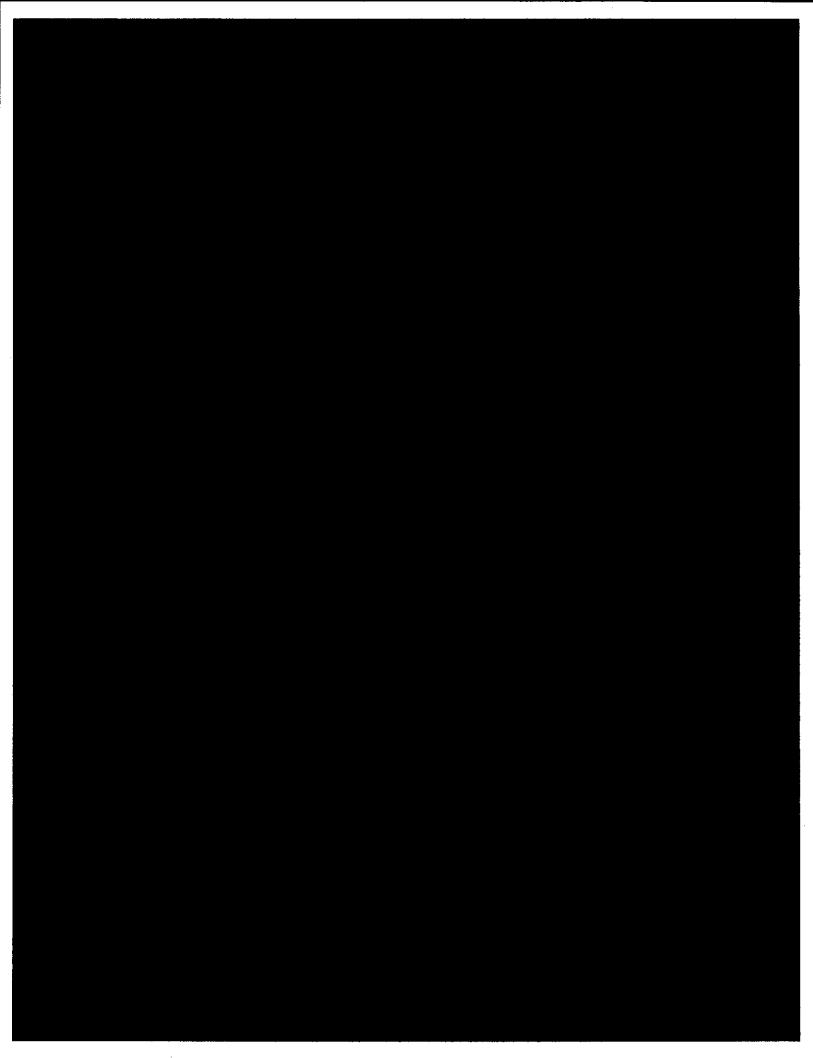
The consolidation of ARDF Communications Nets also took
place during this period. There were twenty ARDF nets in the communications
structure of the ARDF program on 30 June 1967. A plan was developed to
rebuild and consolidate the system into eleven nets. The revised netting
was to have been implemented on 1 September 1967 and was expected to
result in a more efficient communications structure. It was also
designed to make maximum utilization of cryptographic Hestia pads which

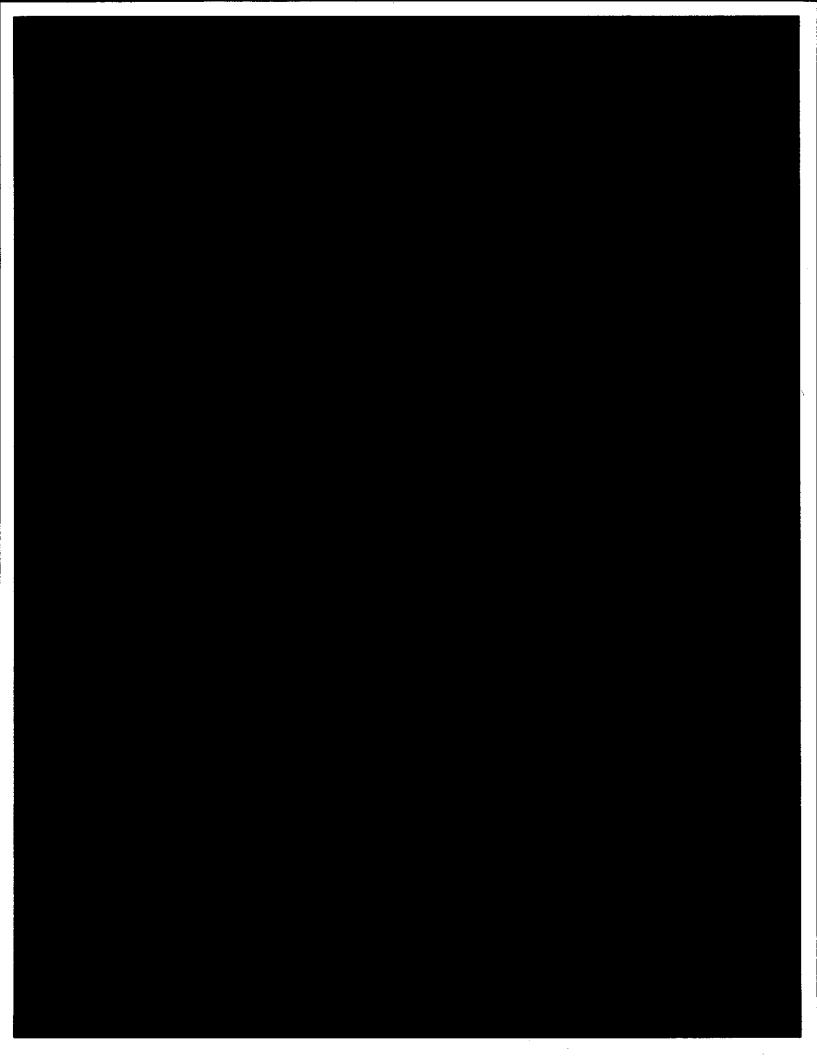
are used to encrypt ARDF fixes for transmission from the aircraft to the Direct Support Radio Research units.

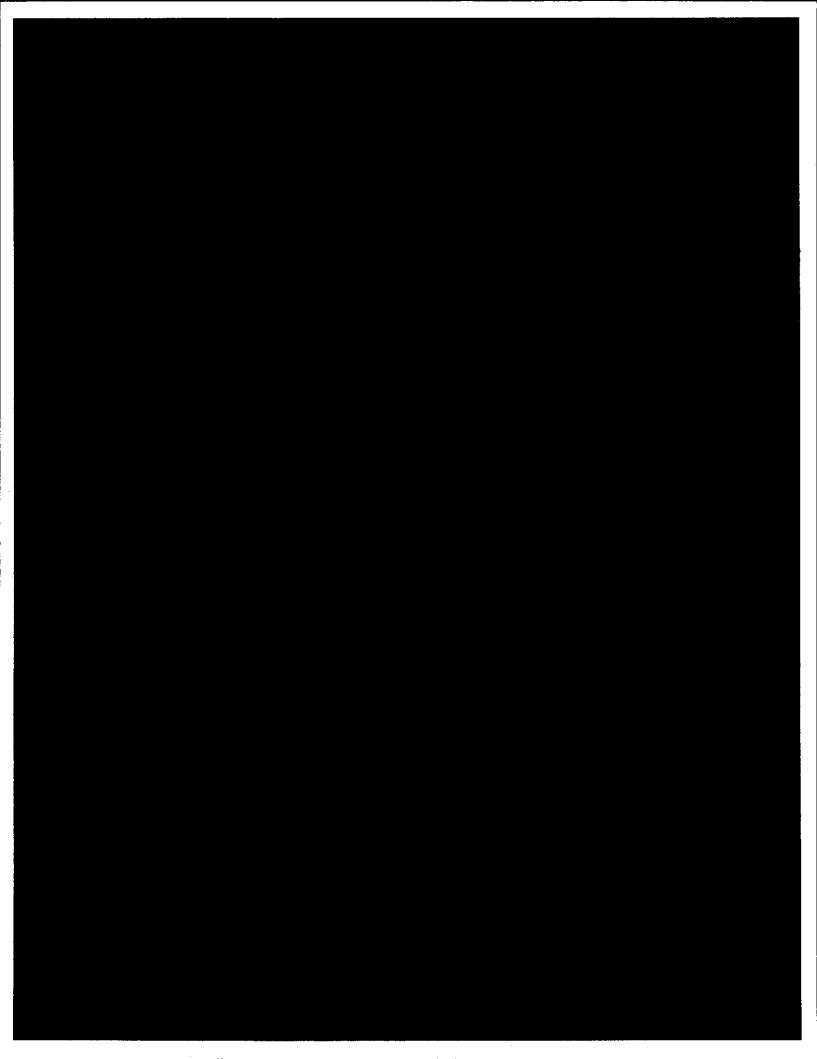
TASKING CYCLE

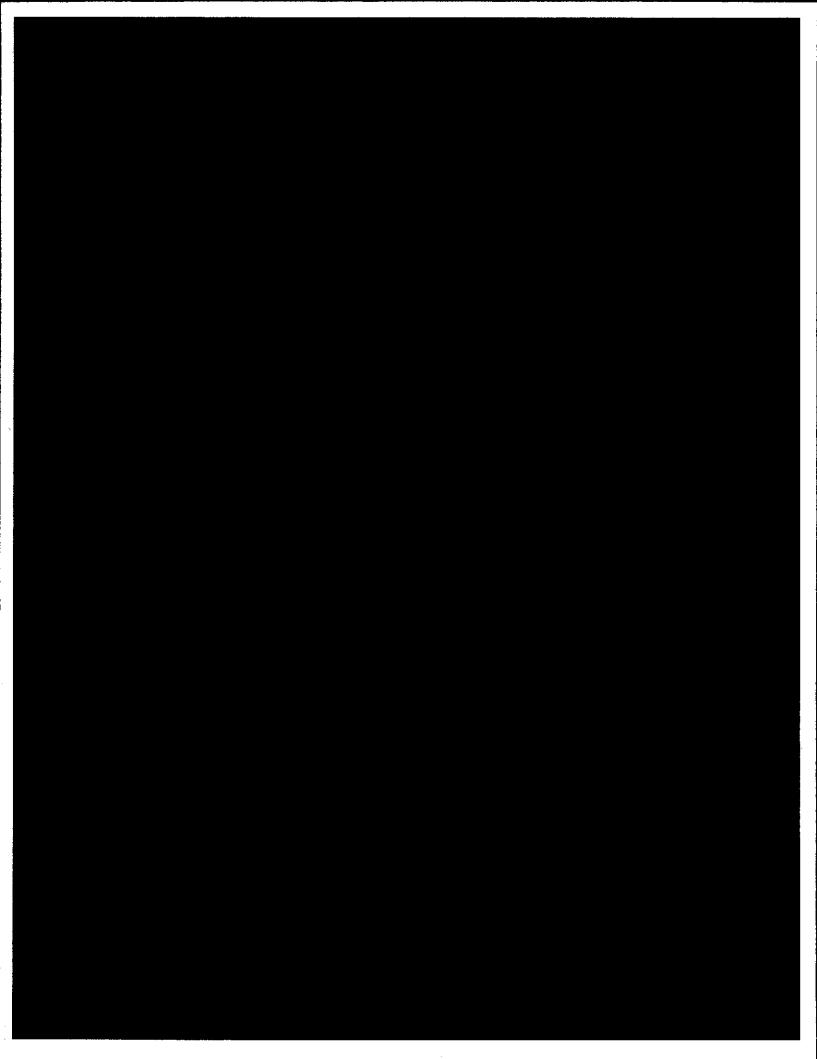


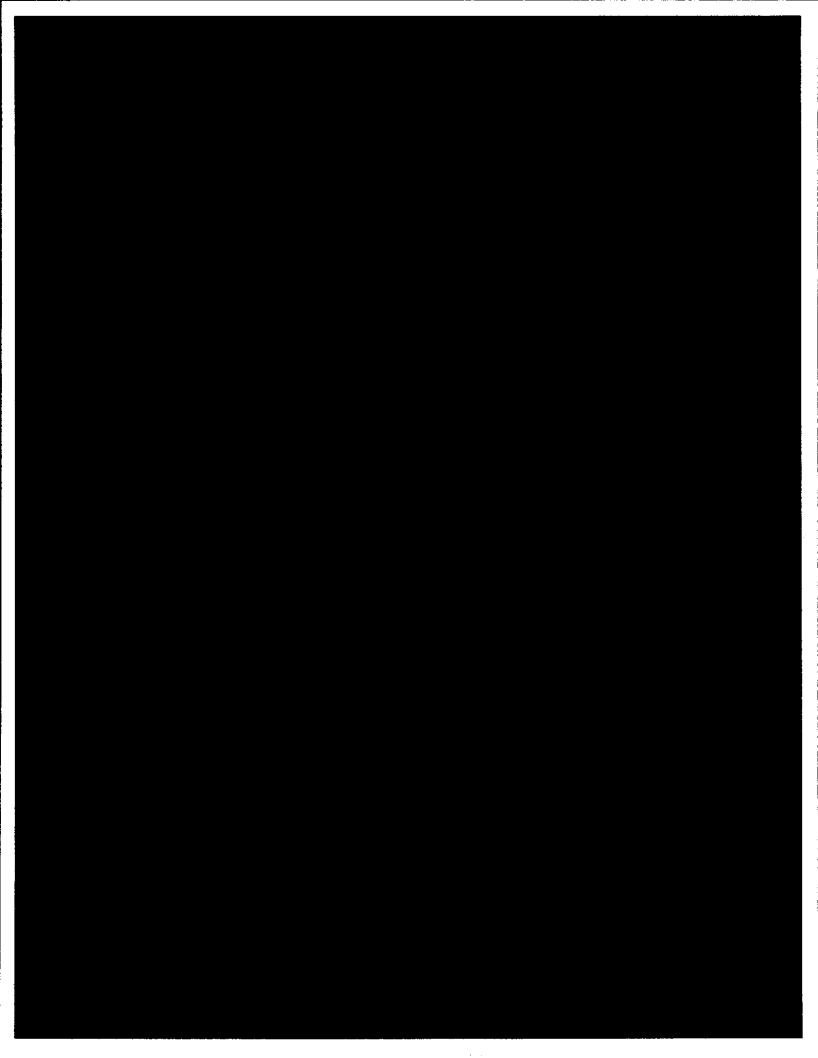


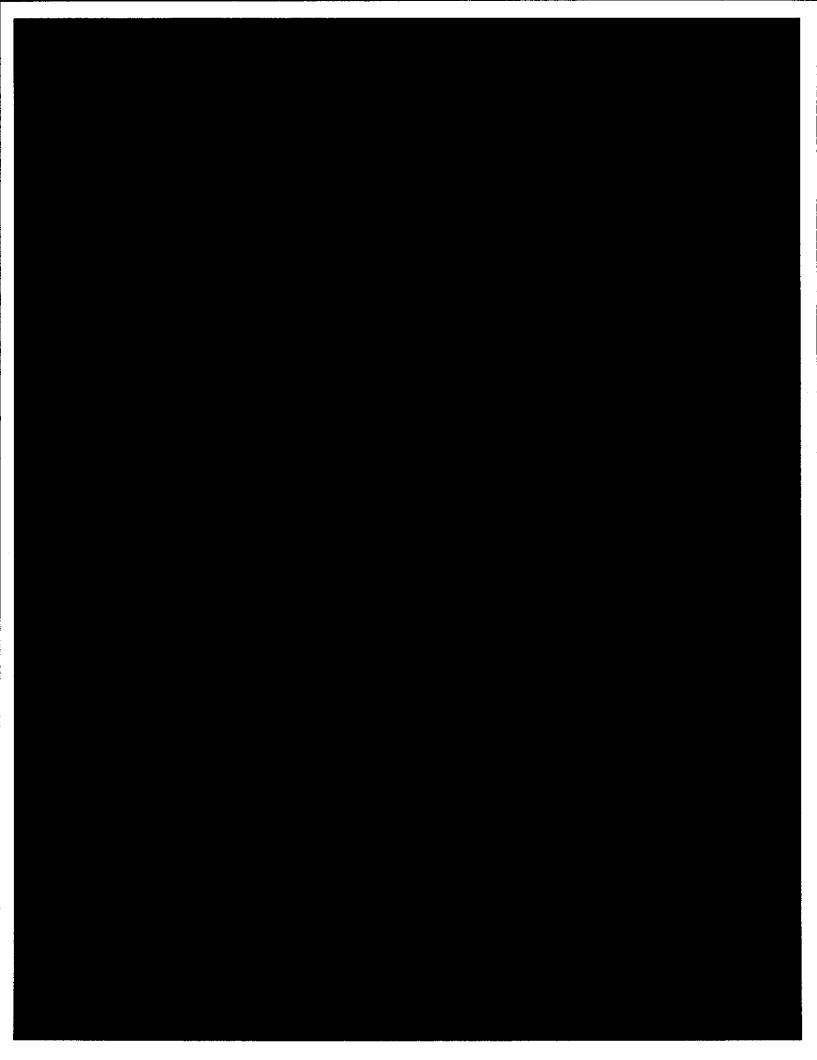


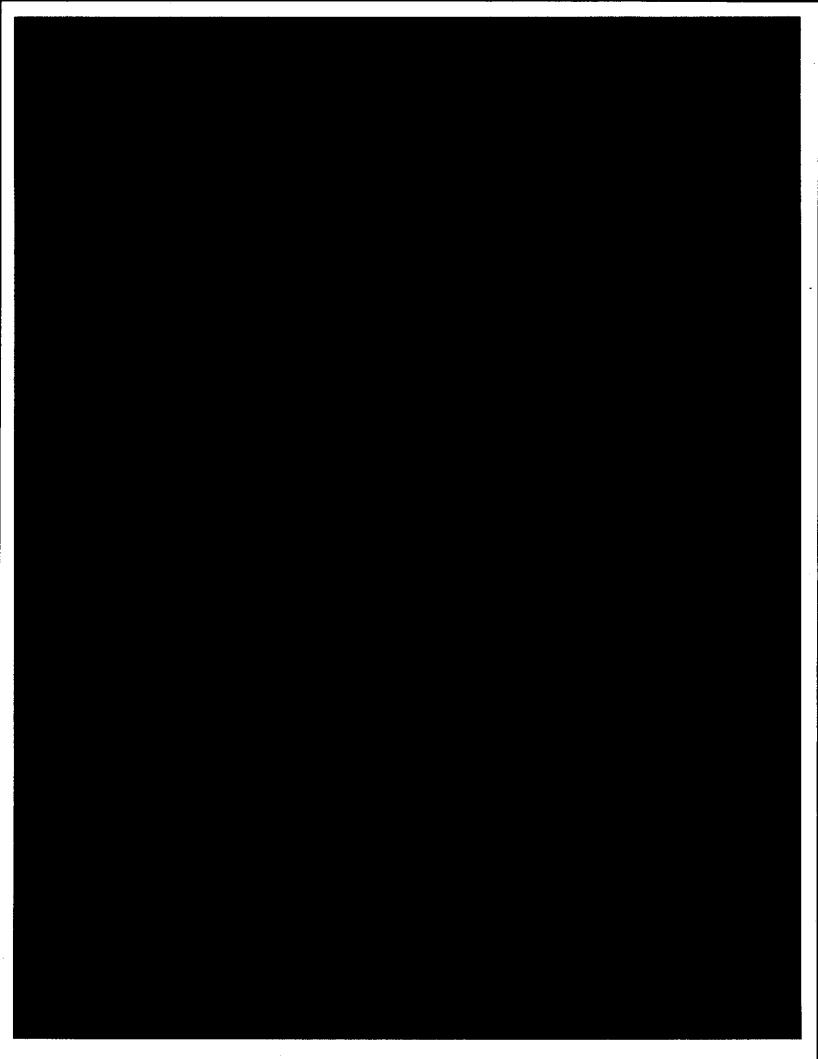


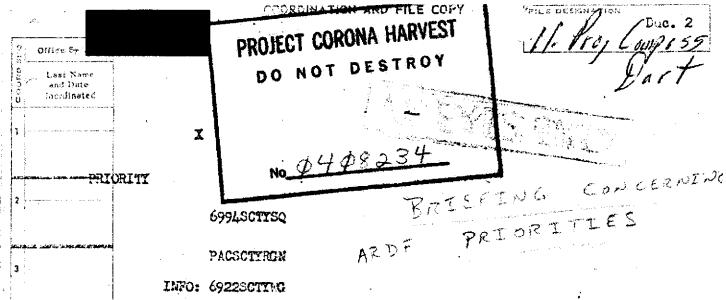












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Channels

OPS 11/5 / HAY 67.

THIS MSG IN II PARTS. PART I. RE MY CFS 07097 MAY 67. ERIEFING

WAS GIVEN 11 MAY BY MACV J-2 ARDF STAFF TO GEN MCCHRISTIAN, MACV J-2,
ON PROPOSED REVAMP OF ARDF TASKING, ETC. GEN MCCHRISTIAN DISAPPROVED

ANY-CHANGE IN EXISTING SYSTEM. HE SAID (A) MACV J-2 WILL ALWAYS

STABLISH ARDF TARGET PRICRITIES AND DETERMINE WEIGHT OF EFFORT (I.E.
NUMBER OF MISSIONS) TO BE ALLOCATED TO GIVEN AREAS: (B) IT IS UP TO

THE POPERATORS, AIR FORCE AND ARMY, TO DETERMINE ALL ELSE ON BASIS
OF TECH DATA, ETC VIA ACC; (C) IF EVER HE CAVE ACC ANY OF HIS ABOVE
RESPONSIBILITY, IT WOULD HE HEADED BY J-2 MACV OFFICER. PART II.

DODSPECKEP EFFORT AT BRIEFING TO SELL DATA-BASE CONTROL PRODUCED

FLAT STATEMENTS FROM GEN MCCHRISTIAN THAT THIS WOULD NEVER HAPPEN.

OTHER COPMENTS BY DOESPECREP ALLEGING SYSTEM SHORTCOMINGS WITHOUT

GREATER CMA ROLE, ETC. MERE COUNTERED BY THE CEMERAL IN EVERY CASE
WITH FACTS DISPUTING THE ALLEGATIONS. RAPPORT BIVE 6994TH SS AND

MAGY ANDE STAFF ON ALL ISSUES HAS NEVER BURN HETTER. 509TH RRG

12 .

MAY

1 2

1967

4697

Lt_Col Gilbert

RUCINALD O.M. CILHERT, Lt Col, USAF Operations Officer

USAPSS FORM A

with a ablancia

Doc. 2 Cont.

PRICRITY

Lt Col Gilbert

Lt Col Cilbert

4697

IS TRYING TO PLAY BOTH SIDES OF STREET, BUT ON SHOW DOWN TENDS TO GO ALONG WITH 6994TH EXCEPT FOR J-2 MACV OFFICER HEADING ACC. BLV SUBJ OF ARDF TASKING SYSTEM CHANGES IS DEAD UNTIL AFTER GEN DAVIDSON (GEN MCCHRISTIAN'S REPLACEMENT) GETS SETTLED IN. ALSO BLV WE CAN THEN EXPECT HENEVED DODSPECREP EFFORT IN TRYING TO SELL. ITS POINTS TO GEN DAVIDSON.

S. A.

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