

UNCLASSIFIED

HISTORY OF THE  
6994TH SECURITY SQUADRON  
AND ITS DETACHMENTS

January – June  
1966



The EC-47 History Site

USAFSS



ON FILM

HISTORY  
 OF THE  
 6994TH SECURITY SQUADRON  
 1 JANUARY-30 JUNE 1966  
 RCS:AU-D5(AFS-1)

000071  
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PROJECT CORONA. HARVEST.  
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1 JANUARY 1967



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HISTORY

OF THE

6994TH SECURITY SQUADRON

1 JANUARY - 30 JUNE 1966

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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:

*Robert L. Wallander*  
ROBERT L. WALLANDER  
Lt Col, USAF  
Commander

[REDACTED]

**F O R W A R D**

This historical account of the activities of the 6994th Security Squadron, Tan Son Nhut Air Base, Vietnam, covers the period 15 April through 30 June 1966. Much of the information was taken from the documents prepared by the Mission Management Section of the 6922d Security Wing, Clark Air Base, Philippines.

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ROBERT E. HOSKINS, A2G, USAF  
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Q H R O N O L O Q Q X

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6994 SGTI SQ BCS: AU-D5 (AFS-1)

## CHAPTER I - ORGANIZATION AND MISSION

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This test provided significant results, and the Military Assistance Command, Vietnam (MACV), and Seventh Air Force (7th AF) requested that the aircraft remain in-country, and that the mission be expanded.

[REDACTED] Also during 1965, MACV expressed interest in the Airborne Emergency Reaction Unit capabilities. In December, two C-47 aircraft equipped with two HF and VHF positions were assigned to Vietnam for a 120-day period under the project name of DRILL PRESS. Collection of information regarding known targets was compared with that collected by ground sites.


#### Activation

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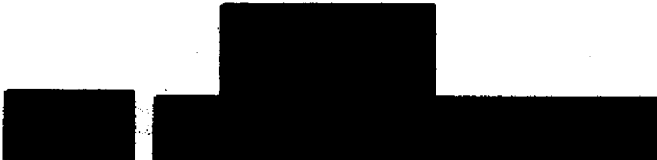


  
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 The 6994th Security Squadron was located at Tan Son Nhut Air Base, Vietnam, and programming indicated that two detachments were to be activated. One was to be activated at Nha Trang Air Base, and the other at Pleiku Air Base. The unit was directly subordinate to the 6922d Security Wing, located at Clark Air Base, Philippines. The 6994th Security Squadron was operationally responsible to Headquarters, Seventh Air Force, also located at Tan Son Nhut. The existing facilities and personnel of Projects DRILL PRESS and HAWKEYE were incorporated into the unit. The HAWKEYE operation, later called Project PHYLIS ANN, was conducted from the 7th AF AFSSO compound, and DRILL PRESS personnel operated from a compound utilized by NSAPAC, Vietnam. The consolidation of operations into the 6994th Security Squadron produced no significant changes in the organizational control of these functions.

Unit Expansion

 In early 1966, the USAFSS was directed to provide for the back-end crew manning of 35 ARDF equipped C-47 aircraft in Vietnam. This directive was later changed to reflect the deployment of 47 such aircraft to the war zone. The aircraft were to be deployed in increments by the end of the year. The PHYLIS ANN aircraft were to be configured with the ARD-18 console. This new equipment was solid state and transistorized, and utilized plug-in modules which could be easily removed and replaced. The ARD-18 system also provided a



360 degree capability, allowing the aircraft to be flown parallel to the target transmitter. Equipment used previously required the pilot to maneuver the aircraft on a course directly toward or away from the target. Such a maneuver could serve as a tip-off to equipment operators that their activities were under surveillance; thus causing them to cease operation until after the aircraft has departed. The rapid influx of Viet Cong into South Vietnam resulted in an increased number of targets. Tasking for both the collection effort and the ARDF missions was by MACV and 7th AF. Facilities were targeted not only against the Viet Cong, but against the North Vietnamese infiltrator communications complexes located in South Vietnam. The DRILL PRESS aircraft were targeted against enemy ground communications that were either difficult or impossible for ground sites to intercept. Specific targeting was levied against terminals of the Military Intelligence Bureau (COSVN) which were known to be passing exploitable traffic. The superior quality of airborne intercept over that of Army ground intercept resulted in continued DRILL PRESS tasking of these entities. DRILL PRESS missions were flown from early January until May 1966.

#### Aircraft Delivery Problems

Early planning reports indicated that 35 ARDF C-47 aircraft were to be assigned to perform the 6994th Security Squadron mission. These aircraft were to be delivered to South Vietnam between April and November 1966. The Army was also directed to expand its ARDF U6/U8 fleet from 25 to 71 aircraft. Later deployments,

however, indicated that the Air Force was to provide 47 ARDF aircraft and the fleet was to be reduced to 57 ARDF equipped planes. The aircraft were to be phased into use as follows:

Month	Army U6/US	Air Force G-47
February 1966	25	1 (HAWKEYE)
April 1966	4	1
May 1966	2	3
June 1966	3	6
July 1966	13	8
August 1966	9	8
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October 1966	0	8
November 1966	<u>0</u> 57	<u>47</u>

USAFSS advised that there would be slippage in the delivery of the aircraft. Increased calibration time and manufacturing problems were encountered. The ARD-18 systems proved to have a high failure rate, and future systems were to undergo modification. The procurement of critical parts caused an additional delay.

The first PHILLIS ANN aircraft arrived at Tan Son Nhut with no ARDF equipment installed. The ARD-18 position had been previously shipped to the 6994th and was installed in the aircraft

upon its delivery to the unit. The HF/HF acquisition, known as the "Y" position, was installed in aircraft two, three, and four prior to aircraft delivery at Tan Son Nhut. Technical representatives noted that poor procedures were followed when the equipment was installed. Loose wires and unconnected parts were common. No spare parts were available at the unit to maintain the equipment, consequently, the aircraft experienced long periods of down time. Listed below are some of the malfunctions encountered, and the dates these difficulties occurred during June 1966.

Aircraft Number	Date (June)	Equipment Malfunction
112, 524	7, 8, 27	Cursor (ABD-18)
112	10, 17	Beat Frequency Oscillator
112	10	Franklin Printer
112	14, 19, 30	Threshold
112	16, 19	Phase Measurement Module
112	17, 20	Test Oscillator
112	25, 26	Command Generator
524	28	Automatic Frequency Control

In addition to the above malfunctions, considerable difficulty was experienced in maintaining calibration on the G-12 Compass and Doppler radar equipment.

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CHAPTER II - TASKING AND COLLECTION

SIGINT Collection Facilities

Shown below are the aircraft and equipment used by the 6994th Security Squadron in the accomplishment of its aerial mission.

HAWKEYE

Aircraft Number 45-0925 (JC-47D)  
Prototype ABDF System. No collection/acquisition position

DRILL PRESS

Aircraft Numbers 0-49680 and 0-16254 (JC-47D)

Position Number 1: 2 G133B HF receivers  
2 AIC/10 intercomm

Positions 2 and 3: 1 G133B HF receiver  
1 G120C tape transport  
1 G119H record amplifier  
1 AIC/10 intercomm

Position Number 4: 1 G175A VHF receiver  
1 G120C tape transport  
1 G119H record amplifier  
1 G276A demodulator  
1 AIC/10 intercomm

EMERALD ANN

Aircraft Numbers 0-15112 (RC-47A) and 44-76524 (RC-47D)  
ARD-18 ABDF system  
Provisions for HF/HF acquisition console (not installed)

SIGINT Collection

██████████ Although AEDF could not be considered as a collection function, AEDF equipment represented a major portion of the mission equipment. DRILL PRESS aircraft were configured strictly for collection; HAWKEYE aircraft for AEDF only; and the single PHYLLIS ANW aircraft with AEDF equipment with provisions for the addition of a limited collection capability.

██████████ The two DRILL PRESS aircraft were equipped with three HF manual Morse positions and one VHF radiotelephone position. Prior to 15 June 1966, only two of the HF positions and the VHF position were manned. The remaining HF position was utilized as an analysis position. On 15 June, the other position was manned from available resources, since no authorized slots were made available through the manning document. The PHYLLIS ANW aircraft was equipped with AED-16 AEDF system and contained essential wiring for the installation of an HF Morse acquisition position. This position is to carry the designation of "Y" console when installed.

SIGINT Collection Policies

██████████ The 509th Radio Research Group maintained tasking authority over the DRILL PRESS and HAWKEYE facilities. Tasking was weighted in light of local consumer requirements and was levied directly to the project concerned. DRILL PRESS operations were based on weekly assignments or as required. HAWKEYE was tasked daily until

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1 June, when PHILLIS ANN tasking was incorporated and the Joint Platform Management Group commenced tasking both projects on a weekly basis.

DRILL PRESS

[REDACTED] In early January 1966, DRILL PRESS Phase I was conducted to familiarize rear-end crews with Viet Cong communications procedures and to familiarize the aircraft front-end crews with the terrain of South Vietnam. The traffic from these early missions were compared with the intercept from USM-626 ground intercept. Comparisons showed that DRILL PRESS copy was accurate and timely. Phase II missions flown in January provided airborne intercept and assisted in the development of significant Viet Cong targets. SIGINT results for this period reflected that ABERU had the capability to intercept Viet Cong targets which could not be monitored by fixed ground sites. The ABERU aircraft could get close to the target transmitter, thus less interference was noted in intercept. DRILL PRESS, in the early stage of its implementation, was tasked with the interception of unidentified Viet Cong targets. It was also tasked with providing unique intercept of known targets of high interest to consumers.

[REDACTED] In February, DRILL PRESS was tasked not only with Viet Cong targets, but with intercept of suspected Cambodian infiltration

[REDACTED]

[REDACTED]

nets along the Cambodia/Vietnam border. In March, one DRILL PRESS aircraft was deployed to Danang to provide Morse intercept coverage on the northern infiltration nets and voice search of suspected communications associated with convoy movement or infiltration activity. Tasking and technical support was provided by ECM-808 on six Morse targets of special interest. The Morse targets reflected little activity; however, voice intercept resulted in 65 minutes of Vietnamese and Cambodian target copy.

[REDACTED] DRILL PRESS entered Phase III, its final test phase, on 3 March 1966. During this phase, it was used as an extension of the 3rd Radio Research Unit intercept facility at Tan Son Nhut. The first two phases of the test were developmental, and the last phase was operational in nature. Testing was terminated 11 May, and the operational control of the project was transferred from the NSA Pacific Representative, Vietnam (C), to the Director of Intelligence, 7th AF. The transfer of control did not affect the manner in which the aircraft was being employed or tasked. DRILL PRESS flew in an operational role as an extension of the ground based COMINT collection in South Vietnam. During May and June, missions were flown in the Tay Ninh Province daily.

[REDACTED]

[REDACTED]

[REDACTED]



**PHYLIS ANN**

██████████ During June 1966, Project PHYLIS ANN produced many significant results. More than 100 "fixes" were reported and more than 120 mission hours were flown. A breakdown of these missions follows:

<u>Date</u>	<u>Missions Flown</u>	<u>Hours Flown</u>	<u>Fixes</u>
4-10	7	32:30	45
11-17	4	25:45	12
18-24	6	17:20	11
25-30	7	46:10	45

██████████ During the 4-10 June period, two fixes confirmed that the 101st Regiment of the 325th PAVN Division had moved from the Phu Bai area to the Tay Ninh Province. The missions during 11-17 June period were flown over the area from Pleiku to the Saigon area and near the Cambodian border. Missions were also flown over the Southern Laos panhandle. The six missions that followed were targeted over the Tay Ninh Province, northwest of Saigon, and the Phuoc Tay area located north of Saigon. During the last part of the month, fixes assisted the Army's First Division in locating the Headquarters, 9th Viet Cong Division, and the 272d Viet Cong Regiment.

SIGINT Processing and Reporting

██████████ The 6994th Security Squadron was not tasked with a processing mission. DRILL PRESS and HAWKEYE/PHYLIS ANM operators maintained essential records which were delivered, along with the DRILL PRESS traffic, to Army analysts for processing. No SIGINT reports originated at this unit. The 6994th was, however, tasked with the preparation of three operational reports; the HAWKEYE Weekly Summary, the DRILL PRESS Weekly Operational Summary, and the PHYLIS ANM Weekly Summary.

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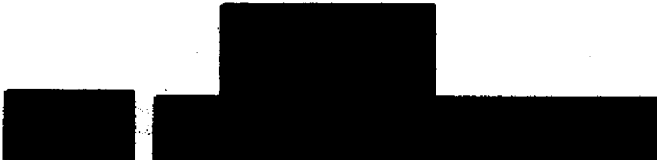
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112	25, 26	Command Generator
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In addition to the above malfunctions, considerable difficulty was experienced in maintaining calibration on the G-12 Compass and Doppler radar equipment.

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1 June, when PHILLIS ANN tasking was incorporated and the Joint Platform Management Group commenced tasking both projects on a weekly basis.

DRILL PRESS

[REDACTED] In early January 1966, DRILL PRESS Phase I was conducted to familiarize rear-end crews with Viet Cong communications procedures and to familiarize the aircraft front-end crews with the terrain of South Vietnam. The traffic from these early missions were compared with the intercept from USM-626 ground intercept. Comparisons showed that DRILL PRESS copy was accurate and timely. Phase II missions flown in January provided airborne intercept and assisted in the development of significant Viet Cong targets. SIGINT results for this period reflected that ABERU had the capability to intercept Viet Cong targets which could not be monitored by fixed ground sites. The ABERU aircraft could get close to the target transmitter, thus less interference was noted in intercept. DRILL PRESS, in the early stage of its implementation, was tasked with the interception of unidentified Viet Cong targets. It was also tasked with providing unique intercept of known targets of high interest to consumers.

[REDACTED] In February, DRILL PRESS was tasked not only with Viet Cong targets, but with intercept of suspected Cambodian infiltration

[REDACTED]



[REDACTED]

nets along the Cambodia/Vietnam border. In March, one DRILL PRESS aircraft was deployed to Danang to provide Morse intercept coverage on the northern infiltration nets and voice search of suspected communications associated with convoy movement or infiltration activity. Tasking and technical support was provided by ECM-808 on six Morse targets of special interest. The Morse targets reflected little activity; however, voice intercept resulted in 65 minutes of Vietnamese and Cambodian target copy.

[REDACTED] DRILL PRESS entered Phase III, its final test phase, on 3 March 1966. During this phase, it was used as an extension of the 3rd Radio Research Unit intercept facility at Tan Son Nhut. The first two phases of the test were developmental, and the last phase was operational in nature. Testing was terminated 11 May, and the operational control of the project was transferred from the NSA Pacific Representative, Vietnam (C), to the Director of Intelligence, 7th AF. The transfer of control did not affect the manner in which the aircraft was being employed or tasked. DRILL PRESS flew in an operational role as an extension of the ground based COMINT collection in South Vietnam. During May and June, missions were flown in the Tay Ninh Province daily.

[REDACTED]

[REDACTED]

[REDACTED]

**PHYLIS ANN**

██████████ During June 1966, Project PHYLIS ANN produced many significant results. More than 100 "fixes" were reported and more than 120 mission hours were flown. A breakdown of these missions follows:

<u>Date</u>	<u>Missions Flown</u>	<u>Hours Flown</u>	<u>Fixes</u>
4-10	7	32:30	45
11-17	4	25:45	12
18-24	6	17:20	11
25-30	7	46:10	45

██████████ During the 4-10 June period, two fixes confirmed that the 101st Regiment of the 325th PAVN Division had moved from the Phu Bai area to the Tay Ninh Province. The missions during 11-17 June period were flown over the area from Pleiku to the Saigon area and near the Cambodian border. Missions were also flown over the Southern Laos panhandle. The six missions that followed were targeted over the Tay Ninh Province, northwest of Saigon, and the Phuoc Tay area located north of Saigon. During the last part of the month, fixes assisted the Army's First Division in locating the Headquarters, 9th Viet Cong Division, and the 272d Viet Cong Regiment.

SIGINT Processing and Reporting

██████████ The 6994th Security Squadron was not tasked with a processing mission. DRILL PRESS and HAWKEYE/PHYLIS ANM operators maintained essential records which were delivered, along with the DRILL PRESS traffic, to Army analysts for processing. No SIGINT reports originated at this unit. The 6994th was, however, tasked with the preparation of three operational reports; the HAWKEYE Weekly Summary, the DRILL PRESS Weekly Operational Summary, and the PHYLIS ANM Weekly Summary.

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