

UNCLASSIFIED

HISTORY OF THE
6994TH SECURITY SQUADRON
AND ITS DETACHMENTS

July – December
1966



The EC-47 History Site

ON FILM

~~TOP SECRET~~

HISTORY
 OF THE
 6994th SECURITY SQUADRON
 1 JULY- 31 DECEMBER 1966
 RCS: AU-D5 (AFS-1)

000072

19 OCT 1970



PROJECT CORONA HARVEST
 DO NOT DESTROY
 0408627-0408651
 0418248-0418257
 0408626
 No. _____

HQ AF ISR Agency
 Security Office
 Reviewed by: JGA
 Date: 30 April
 Classification: UNCLAS

1 JULY 1967

~~NO FOREIGN DISSEM~~

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TAN SON NHUT AIR BASE, VIETNAM

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HISTORY

OF THE

6994th SECURITY SQUADRON

1 July- 31 December 1966

RCS: AU-D5 (AFS-1)

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FOREWORD

This document is the historical account of the operational functions of the 6994th Security Squadron and its two detachments. Included within are subjects which could not be included in the unit's AU-D5 report because of security restrictions. The period covered here is from 1 July- 31 December 1966. The classification of this history is TOP SECRET CODEWORD.

Since the squadron and its two detachments share the same mission requirements, needless duplication is avoided in most cases. The histories of the detachments are, however, presented in the appendices. Also included in the appendices is a brief history of the operations and functions of the Airborne Radio Direction Finding Coordination Center (ACC).

The research and writing was done by Sgt Odom; Sgt Taylor was responsible for the ACC report. The Historian was mainly concerned with editing and style.

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

ROBERT E. HOSKINS, A1C, USAF
Historian

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C H R O N O L O G Y

<u>Date</u>	<u>Event</u>
1 Jul 1966	Detachment 1, 6994th Security Squadron, was activated at Nha Trang AB, Vietnam.
9 Jul 1966	The lone Hawkeye aircraft flew its last mission.
20 Jul 1966	Lieutenant Colonel Reginald G. M. Gilbert arrived to assume the position of operations officer for the squadron.
1 Aug 1966	A Daily Operational Management Report (DOMR) underwent a 30-day test period.
2 Sep 1966	Drill Press was tasked with providing COMINT on French President Charles de Gaulle's visit to Phnom Penh, Cambodia.
1 Oct 1966	Detachment 2, 6994th Security Squadron, was activated at Pleiku AB, Vietnam.
16 Oct 1966	The entire Drill Press contingent deployed to Hue/Phu Bai.
10 Nov 1966	Psychological-warfare leaflets were dropped for the first time during Phyllis Ann missions.
31 Dec 1966	A total of 25 Phyllis Ann aircraft were in-country.

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CHAPTER I- MISSION AND ORGANIZATION

Mission

~~(SIVGCO)~~ 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 program in Southeast Asia. The unit accomplished its mission through the resources of Projects Phyllis Ann, Drill Press, and Hawkeye. Through these facilities the unit provided:

- (1) direct COMINT support to combat activities by pinpointing the location of Viet Cong targets, and passing the information to Direct Support Units (DSU)
- (2) ARDF of Viet Cong targets for United States Army Security Agency (ASA) units in support of exploitation activities, and
- (3) augmentation of ASA intercept facilities through the ARDF acquisition equipment and the Drill Press airborne collection platforms.

~~(SIVGCO)~~ The mission of the organization was unique. Its entire function was that of a collection activity, operating in support of Army, Navy, and Marine SIGINT activities. The organization had no processing responsibility and played only a passing role in reporting.

Organization

~~(SIVGCO)~~ 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 its close tactical support mission to both ground and air activi-

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ties, operational control was normally accepted as being exercised by Military Assistance Command, Vietnam (MACV-J2).

~~(SIV000)~~ The squadron provided administrative support to the USAFSS Liaison Office (SSLO); to the Security Service personnel assigned to the National Security Agency's SIGINT Support Group (SSG Det); and to USAFSS personnel assigned to the ARDF Coordinating Center (ACC). The SSLO and the SSG Detachment functioned independently of the squadron, and played no role in the mission accomplishment. The ACC, however, played a major role in the squadron's mission. And although it was a joint activity, the ACC functioned somewhat as an operational element of the organization. ¹

Organizational Changes

(U) Since the last reporting period, Detachment 1, 6994th Security Squadron, was activated at Nha Trang AB, Vietnam on 1 July 1966. ²
Detachment 2, 6994th Security Squadron, was activated on 1 September 1966, at Pleiku AB, Vietnam. ³

Deployments

~~(SIV000)~~ A contingent of personnel and one Drill Press aircraft was deployed to DaNang AB, Vietnam, from 24 July to 9 August 1966. This move was at the direction of the Director of Intelligence, Seventh Air Force, for the explicit purpose of providing airborne collection of targets in the Demilitarized Zone that were known or suspected to be passing exploitable traffic relating to the tactical situation of Operation Hastings-- a major ground offensive in the area combatting the infiltration of the PAVN 324B NVA Division. ⁴

~~(SIV000)~~ On 23 August 1966, the entire Drill Press contingent deployed to Pleiku. The deployment was in response to a request by the Army's 509th

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Radio Research Group. The group wanted airborne collection of targets associated with the 630th Military Front which was cited by DIRNSA as the largest Viet Cong tactical concentration in South Vietnam. ⁶ Although the support continued through 23 September 1966, ⁷ the deployment was terminated ⁸ on 26 August due to the limited logistical support available at Pleiku.

~~(S) (U)~~ From 24 September to 7 December 1966, the 6994th Security Squadron maintained a detached activity at DaNang. Until 16 October, the activity consisted of the entire Drill Press contingent and approximately four Phyllis Ann aircraft and the complete crew compliments. The activity was established to fulfill the mission requirements in the DMZ and in Laos. ⁹

On 16 October, the Drill Press contingent moved its operating location to Hue/Phu Bai Air Base, Vietnam. ¹⁰ This move was made to achieve better coordination with USM-808 personnel who were providing technical support for the operation. The Drill Press deployment to Hue/Phu Bai continued; however, the Phyllis Ann operation at DaNang ceased on 7 December 1966, when Detachment 1, assumed responsibility for the mission accomplishment in the DMZ. ¹¹

Internal Organizational Changes

~~(S)~~ Several internal changes occurred within the operations section. Most of the changes evolved from the fact that the organization represented an entirely new concept in missions and operations. Many of the changes took place after the section moved to the communications/operations building in early July 1966. ¹² This move consolidated numerous functions that had been separated due to the location of vans which were utilized as work areas.

~~(S)~~ In mid-July, the Drill Press working area was moved from an H1

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van located in the DODSPECREP compound, to the 6994th communications/operations building. No changes in functions or operations occurred.

~~(S/NV000)~~ Prior to 1 September, technical support for Phyllis Ann missions was prepared and distributed from a mobil van located within the compound of the 509th Radio Research Group. The TEXTA bank for the targets was maintained by the Army at its Whitebirch site located off Tan Son Nhut. This made it necessary for the 6994th to make at least one daily trip to the facility to pick up the necessary TEXTA information. It was also necessary for the aircrews to stop at the van to pick up TEXTA prior to departing on a mission. On 1 September, this function was transferred to the 6994th operations area and incorporated into the mission control section.

One analyst was placed at the Whitebirch site to extract and deliver TEXTA to the 6994th. Simultaneous with the transfer of TEXTA distribution, the issue of COMUS pads was made a responsibility of the 6994th, and no longer that of the ACC. These two actions eliminated the need for the aircrews to stop at the 509th enroute to the aircraft.

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(U) The remainder of the changes involved reporting functions, and will be discussed in that section.

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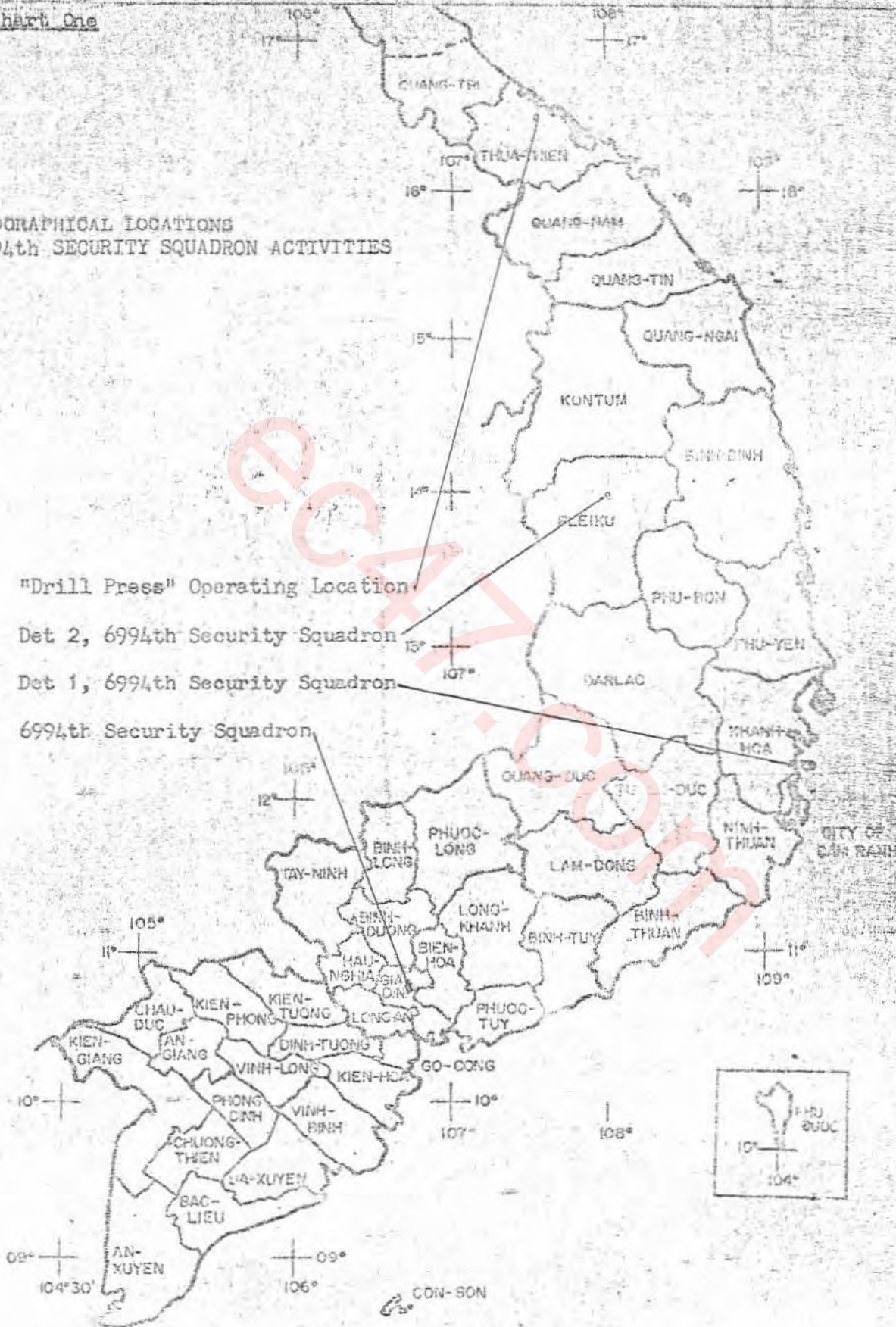
GEOGRAPHICAL LOCATIONS
6994th SECURITY SQUADRON ACTIVITIES

"Drill Press" Operating Location

Det 2, 6994th Security Squadron

Det 1, 6994th Security Squadron

6994th Security Squadron



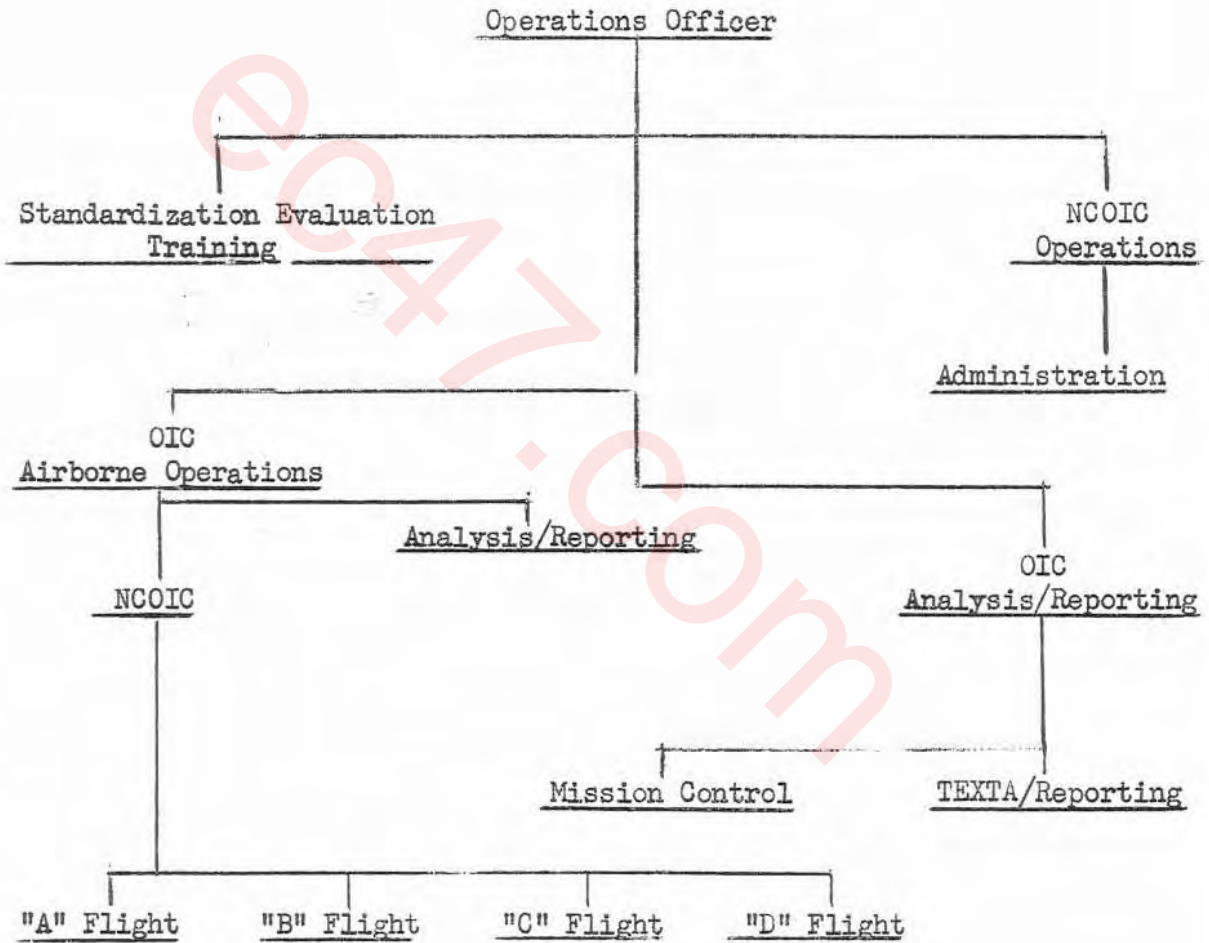
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6994th SECURITY SQUADRON

Operations Section

Organizational Chart



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CHAPTER II- SIGINT TASKING AND COLLECTION

SIGINT Tasking

~~(SIWCCO)~~ As a general rule, both Phyllis Ann and Drill Press were tasked against Viet Cong communications targets. There were some instances, however, where Drill Press received special tasking against targets other than Viet Cong. These items are covered in detail under the section entitled "Special Collection Projects."

~~(SIWCCO)~~ In brief, the procedures for tasking the Phyllis Ann ARDF aircraft was as follows: Tactical commanders submitted their ARDF support requirements to MAC-J2; each Tuesday, MACV-J2 consolidated the requests, assigned priorities to the tasks, and allocated sorties, by service, to satisfy the requirement. Also, MACV-J2 specified the area, by coordinates, in which the sorties were allocated. Each Wednesday a delegation consisting of representatives from the 6994th Security Squadron; 460th Tactical Reconnaissance Wing; 509th Radio Research Group; NSA Pacific Representative, Vietnam (C); Seventh Air Force; and the ACC met at MACV-J2 to discuss the proposed ARDF tasking schedule. Each Thursday the ACC would forward an ARDF tasking schedule to the 6994th Security Squadron and the 360th Reconnaissance Squadron. Working jointly, these units formulated a weekly schedule by aircraft tail number. In actuality, the 6994th Security Squadron played a non-authoritative role in the tasking. The tasking as received in final form was complete and specific. Requirements and problems were formulated, evaluated, and resolved by MACV-J2, Seventh Air Force, and the ACC with the 6994th acting only as informant in the proceedings.¹

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SIGINT Collection

~~(S/NFOSS)~~ The SIGINT collection capability of the squadron consisted of airborne COMINT collection through the facilities of Drill Press, and ARDF through the facilities of Hawkeye and Phyllis Ann. A limited COMINT collection source was also provided by the acquisition facilities of the ARDF system.

SIGINT Collection Facilities

~~(S/NFOSS)~~ The collection facilities of the squadron consisted of the two Drill Press aircraft, the one Hawkeye aircraft, and 11 Phyllis Ann aircraft. The only decrease in capability was the termination of Project Hawkeye. A major increase in capability took place with the addition of 10 aircraft to the Phyllis Ann fleet at Tan Son Nhut. Improved capability was also noted in the night operations of Phyllis Ann. Overall, the number of Phyllis Ann aircraft in-country increased from one to 25.

Hawkeye

~~(S/NFOSS)~~ The single Hawkeye aircraft was equipped with a prototype ARDF system, and contained no acquisition/collection equipment. The aircraft flew its last mission on 9 July 1966. The equipment was subsequently stripped from the airframe and the aircraft returned to the United States during early August.

Drill Press

~~(S/NFOSS)~~ Chart three reflects the Drill Press aircraft as they were equipped during the period. The chart also shows the modifications in equipment configuration that were made by utilizing spare equipment on-hand. These modifications were deemed essential for maximum mission effectiveness.

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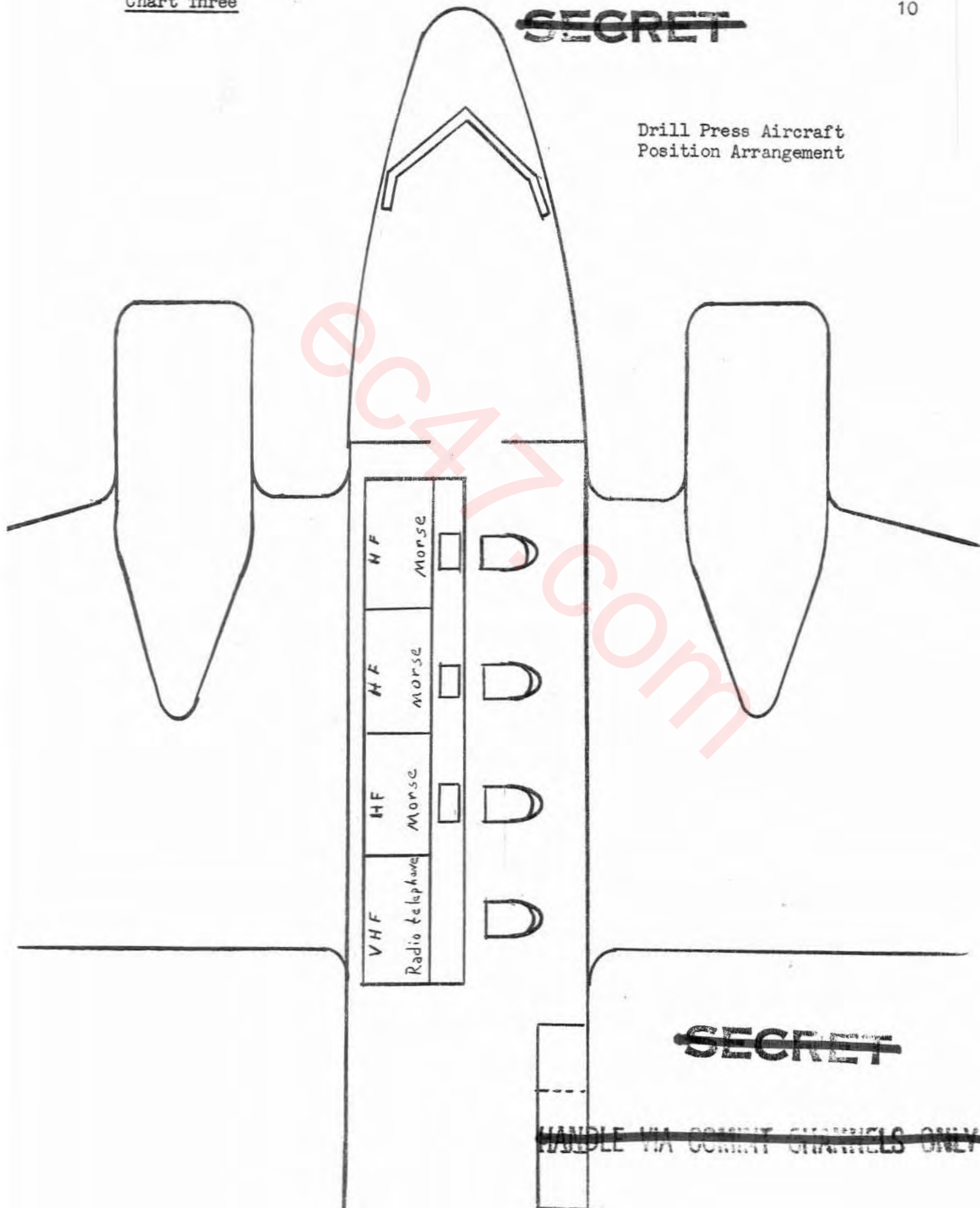
~~(SIUCCC)~~ On 13 December 1966, Drill Press aircraft 43-49680 was sent to Taiwan for corrosion control maintenance. To preclude exceeding the 125-hour per month, per airframe, maximum flying hour limitation, Drill Press missions were reduced to one five-hour daily mission, with every third day a non-mission day.⁴ Normal operations were resumed on 28 December 1966.⁵

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Drill Press Aircraft
Position Arrangement



(43-49600)
(43-16254)

Drill Press Aircraft/Position Configuration
(43-49600 Only)

(43-49680)
(43-16254)

JUNE

JULY

SEPTEMBER

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<u>POSITION</u>	<u>EQUIPMENT</u>	<u>EQUIPMENT</u>	<u>EQUIPMENT</u>
1	2 - G133B HF Receivers 2 - AIC10 Intercomm	2 - G133B HF Receivers 2 - AIC10 Intercomm	2 - G133B HF Receivers 2 - AIC10 Intercomm
2	1 - G133B HF Receiver 1 - G120C Tape Transport 1 - G119H Record Amplifier 1 - AIC10 Intercomm 1 - Record Control	2 - G133B HF Receivers 1 - AIC10 Intercomm	1 - G133B HF Receiver 1 - AIC10 Intercomm 1 - G119H Record Amplifier 1 - G120C Tape Transport 1 - Record Control *1 - Patch Panel
3	1 - G133B HF Receiver 1 - G120C Tape Transport 1 - G119H Record Amplifier 1 - AIC10 Intercomm 1 - Record Control 1 - Antenna Transfer	2 - G133B HF Receivers 1 - AIC10 Intercomm 1 - Antenna Transfer	2 - G133B HF Receivers 1 - AIC10 Intercomm 1 - Antenna Transfer
4	1 - G175A VHF Receiver 1 - G120C Tape Transport 1 - G119H Record Amplifier 1 - G276A Demodulator 1 - SKL 212 Television Amplifier 1 - AIC10 Intercomm 1 - Record Control 2 - Antenna Transfers	1 - G175A VHF Receiver 1 - G120C Tape Transport 1 - G119H Record Amplifier 1 - G276A Demodulator 1 - SKL 212 Television Amplifier 1 - AIC10 Intercomm 1 - Record Control 2 - Antenna Transfers *1 - Patch Panel	1 - G175A VHF Receiver 1 - G120C Tape Transport 1 - G119H Record Amplifier 1 - G276A Demodulator +2 - SKL 212 TV Amplifier 1 - AIC10 Intercomm 1 - Record Control 2 - Antenna Transfers

* Patch panel provided record capability from all positions.

+ Two SKL 212's were connected in series to increase signal strength of R401 signals.

Chart Four

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Phyllis Ann

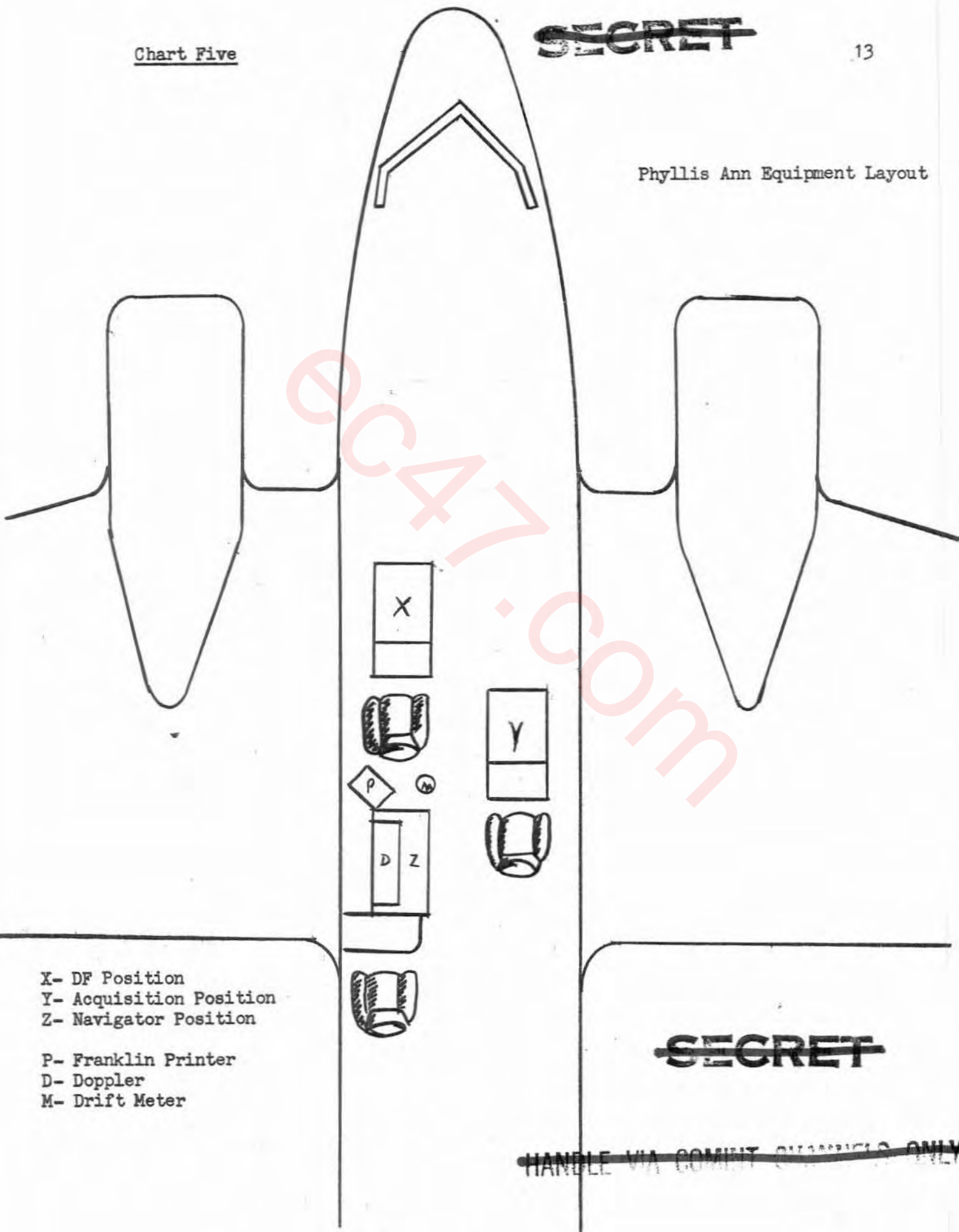
~~(S/NVCCG)~~ ARDF facilities consisted of 10 AN/ARD-18 equipped aircraft.⁶ Only one aircraft was operating at the beginning of the period. And only four of the aircraft were equipped with the "Y" acquisition/collection position.⁷ Chart five displays the equipment configuration within the aircraft.

~~(S/NVCCG)~~ During early October 1966, the night mission capability of Phyllis Ann aircraft was improved through the use of the MSQ-77 Air Force Ground Radar System-- "Sky Spot". Prior to this time, it was possible to fly night missions only if radar coverage in the area was adequate. Since a high priority requirement often existed for ARDF missions in areas without sufficient radar coverage for tracking/positioning of the aircraft, the usable range of the MSQ-77 was extended by placing a "black box" aboard the Phyllis Ann aircraft. This box, dubbed "Music Box", was easily installed and removed from the aircraft, and was placed only in those aircraft scheduled to accomplish night missions in areas not adequately covered by radar. Its use extended the effective range of the ground radar for approximately 100 miles. This system was also used to guide tactical air missions. Due to a limited number of the "Music Boxes", several instances occurred in which scheduled Phyllis Ann missions were cancelled due to lack of equipment.⁸

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Phyllis Ann Equipment Layout



X- DF Position
Y- Acquisition Position
Z- Navigator Position

P- Franklin Printer
D- Doppler
M- Drift Meter

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Expansion

~~(S)~~ Early in 1966, USAFSS was directed to place 35 ARDF aircraft in-country between April and November. Shortly thereafter, the total figure was increased to 47. Considerable slippage occurred in the delivery of these aircraft, and as the terminal date of this report, only 25 aircraft were in-country. Most delays resulted from manufacturing problems experienced by sub-contractors, and did not appear to be the fault of Sanders Associates—manufacturers of the AN/ARD-18 system.

~~(S)~~ Cannon Electric Company, manufacturer of the electrical connectors used in the ARD-18, advised that no further components would be available for an indefinite period of time. Sufficient connectors were available at Sanders to fabricate up to the twentieth AN/ARD-18 system.

~~(S)~~ Globe Industries, suppliers of motors to the Franklin Manufacturing Company which makes the Franklin Printer utilized in the AN/ARD-18 system, ceased delivery of their product until December 1966. Sanders, however, had 33 printers available, and advised that after these were installed, no further deliveries of complete AN/ARD-18 systems could be made prior to February 1967.

~~(S)~~ Receipt of unservicable printed circuit cards retarded fabrication of receiver modules for the AN/ARD-18 system. Several sources of supply for this product were subsequently established by Sanders to alleviate this problem.

~~(S)~~ Due to the production problems identified, Sanders Associates projected 33 AN/ARD-18 systems to be completed by 30 November 1966. Of this total, three systems were shipped for spares, one system was utilized for Phase III testing, one system for Tempest testing, and one for maintenance training purposes. The remaining systems were programmed for

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deployment, and the projected aircraft delivery schedule was revised to schedule a total of 27 ARDF aircraft in-country by 31 December 1966. Aircraft deliveries did not meet this revised schedule, and a total of 25 aircraft were in-country as of 31 December 1966.

Phyllis Ann Test Transmitter

~~(SUV000)~~ Shortly after the arrival of the first Phyllis Ann aircraft, a need arose for a transmitter with characteristics similar to those of the target transmitters. This transmitter would be used by the aircraft to perform an operational check of the equipment prior to departing the local area for an operational mission. In early July, a low powered transceiver was borrowed from a local unit, the 505th Tactical Control Group. This transceiver was used for this purpose. However, when maintenance crews deployed the transceiver to various locations within the perimeter of Tan Son Nhut AB, the effort was ineffective since the aircraft were unable to hear the transmissions. Test were then attempted against a transmitter located on Tan Son Nhut with continuous operation. This effort was also quite ineffective, and was aborted. ¹⁵

~~(SUV000)~~ During August, a transceiver (KWM-2) was received that had been programmed into the Phyllis Ann program to be used for this specific purpose. The transmitter was installed in the 6994th Security Squadron's mission maintenance facility located on the flight line. The antenna provided for the KWM-2 was horizontally polarized; thus it could not be used for the intended purpose. Maintenance personnel were successful in securing and installing a vertically polarized antenna that was well suited for the test application. ¹⁶ The transmitter was placed

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into operation, and manned by Phyllis Ann radio operators.

~~(S)HVC00~~ Generally, this system was utilized for an operational check-out of the AN/ARD-18 system and its associated components. However, on 28 October, a procedure was instituted wherein Phyllis Ann aircraft conducted an extensive test against the transmitter. Numerous precise patterns at various stand-off ranges were flown against the test target. The LOPs were plotted and the overlays and the print-out from the Franklin Printers were forwarded to Sanders Associates in late December for further study.

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<u>Serial No.</u>	<u>Type</u>	<u>Date Arrived</u>	<u>"Y" Installed</u>	<u>Location</u>
43-15112	EC47-A	26 May 1966	No	Tan Son Nhut
44-76524	EC47-D	29 Jun 1966	Yes	Tan Son Nhut
(*) 43-48126	EC47-D	8 Jul 1966	Yes	Tan Son Nhut
43-48767	EC47-D	10 Jul 1966	Yes	Tan Son Nhut
45-1046	EC47-D	10 Aug 1966	Yes	Tan Son Nhut
43-48933	EC47-D	11 Sep 1966	No	Tan Son Nhut
42-93166	EC47-D	13 Sep 1966	No	Tan Son Nhut
43-49865	EC47-D	16 Sep 1966	No	Tan Son Nhut
42-93735	EC47-A	3 Oct 1966	No	Tan Son Nhut
44-76668	EC47-D	19 Oct 1966	No	Tan Son Nhut
44-77016	EC47-D	17 Oct 1966	No	Nha Trang
42-23520	EC47-D	3 Nov 1966	No	Nha Trang
42-93161	EC47-D	9 Nov 1966	No	Nha Trang
43-49100	EC47-D	10 Nov 1966	No	Nha Trang
45-1044	EC47-D	17 Nov 1966	No	Nha Trang
43-15668	EC47-D	21 Nov 1966	No	Nha Trang
43-48886	EC47-D	3 Dec 1966	No	Nha Trang
43-49201	EC47-D	3 Dec 1966	No	Nha Trang
43-48480	EC47-D	3 Dec 1966	No	Nha Trang
44-77254	EC47-D	8 Dec 1966	No	Pleiku
43-48153	EC47-D	10 Dec 1966	Yes	Pleiku
43-48158	EC47-D	14 Dec 1966	No	Pleiku
43-49703	EC47-D	17 Dec 1966	No	Pleiku
43-48102	EC47-D	20 Dec 1966	No	Pleiku
43-48072	EC47-D	29 Dec 1966	No	Pleiku

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* S/N should read 49126

Special Collection Projects

~~(SCW)~~ On 2 September 1966, DIRNSA informed NSA Pacific Representative, Vietnam (C), that press releases had indicated that French President Charles de Gaulle's aircraft had been provided a MIG escort while travelling from French Somaliland to Phnom Penh, Cambodia. The aircraft was scheduled to depart Phnom Penh for New Calendonias at 2/2000G Sep 66. DIRNSA requested that, if possible, a special air platform be scheduled to attempt coverage of Cambodian air-to-air/ground communications reflecting this activity.¹⁸ Drill Press was tasked with this mission. Utilizing two Army French linguists from the 509th Radio Research Group, and analyst from Drill Press, successful intercept of the activity was achieved.¹⁹

~~(SINWOCU)~~ From 3 to 15 October 1966, Drill Press was tasked with a TRANSEC mission in the DMZ.²⁰ Authority for the tasking was USAFSS Special TRANSEC Requirement 20-66. The purpose of the mission was to detect possible compromises of impending B-52 Strato Fortress bombing missions in the DMZ. Position number four (VHF) was utilized for the mission, and was manned by Drill Press analysts. A total of 16 monitor tapes were forwarded to Detachment 5, 6922d Security Wing. Two items pertaining to the B-52 activity was gleaned from the intercept.²¹

~~(SCW)~~ Beginning 26 October 1966, Drill Press conducted a collection/search mission for R401 multi-channel communications suspected to be emanating from the DMZ.²² Position number four was utilized for this mission. In actuality, the intercept and recording of R401 signals was beyond the capability of the equipment installed on this position. The G120C/G119H record equipment had a maximum 10KC record capability and undemultiplexed R401 signals were 12KC bandwidth.

~~(SOW)~~ To overcome this problem, the signal was demultiplexed prior to recording, and only channels one and two of the R401 transmission actually recorded. Initial success in monitoring R401 signals was experienced on the first day of the test; however, the signals were of such poor quality that they were unrecordable. To increase the signal strength to a level that would facilitate recording, two SKL 212 television amplifiers were placed in series and connected to the G175 VHF receiver.²³ Several successful intercepts of R401 transmissions occurred, but none of the transmissions could be identified as originating in the DMZ.²⁴

~~(SINVOOC)~~ Beginning 5 December 1966, Drill Press was tasked with providing Phyllis Ann aircraft with air-to-air tip-off on priority targets intercepted by the Drill Press operators.²⁵ UHF frequencies were used and the transmissions were encrypted by COMUS pads. The overall effectiveness of the effort was somewhat limited by the non-compatibility of the aircraft schedules which often occurred. However, all fixes obtained were high priority targets.

Chart Seven

<u>Date</u>	<u>Tip-off's Passed</u>	<u>Results</u>
5 Dec 1966	6	1- fix
6 Dec 1966	3	2- fixes
7 Dec 1966	4	
10 Dec 1966	2	
11 Dec 1966	4	
12 Dec 1966	6	3- fixes
14 Dec 1966	5	
15 Dec 1966	5	

Phyllis Ann Leaflet Drop

~~(S/NV000)~~ It became increasingly more evident that the Viet Cong were aware of the fact that airborne COMINT activities were being used against them. Army ARDF aircraft noted with increasing frequency that transmitters abruptly ceased operations when the aircraft was in their vicinity. Too, interrogation reports, captured SOIs, and translated message texts confirmed this awareness. Undoubtedly, this situation developed to some degree from the fact that the Army ARDF aircraft employed the AN/ARD-15, Aural Null, ARDF system which required frequent tell-tale maneuvering of the aircraft in the vicinity of the target being fixed.

~~(S/NV000)~~ Phyllis Ann aircraft did not record a single instance of a transmitter indicating awareness of their presence or purpose. This was possibly due to the fact that the EC-47 was relatively new in the area, and because the AN/ARD-18 system allowed ARDF with few maneuvers of the aircraft. It was feared, however, that the constant presence of the EC-47 aircraft in an area would eventually suggest their purpose to the enemy. ²⁶

~~(S/NV000)~~ In August, these factors prompted the 6994th Security Squadron to recommend that any steps possible be taken to provide cover and deception for Phyllis Ann activities. ²⁷ It was suggested that one method of achieving this purpose would be to give the aircraft an outwardly appearance of a psychological-warfare mission. It was thought that this could most easily be accomplished by dropping a limited number of leaflets while flying over target areas. The 6922d Security Wing agreed with the proposal and passed it on to higher headquarters for evaluation and con- ²⁸ sideration. However, the Pacific Security Region did not feel it advisable to use the Phyllis Ann aircraft for other than the intended

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purpose at that time.

~~(S/N000)~~ The subject lay dormant until mid-October when it was discussed with Colonel Edwin H. Garrison, commander of the Pacific Security Region, during a visit to Tan Son Nhut. After gaining full particulars on the scope of the proposal, Colonel Garrison agreed with the recommendation. He then authorized the squadron to pursue the matter with Seventh Air Force. After working out specific details, USAFSS and other interested parties concurred, and the idea was implemented.

~~(S/N000)~~ The first drop was made in early November. The actual task of dropping the leaflets was normally accomplished by the flight mechanic, and had no effect on the actual mission. Approximately 50,000 leaflets were normally expended during a mission.

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CHAPTER III- PROCESSING AND REPORTING

Processing

~~(SIV000)~~ The organization was not tasked with a processing mission. The processing functions outlined below were accomplished for the purpose of providing technical support and establishing records.

~~(SIV000)~~ During August, the squadron submitted a proposal to the 6922d Security Wing that an evaluation of certain operational functions be included in the DCMR.¹ The proposal was accepted by the wing, and guidelines and implementation instructions were forwarded.² Air/ground fix reporting, and ARDF recovery reports were evaluated under this system. The results were included in the DCMR.

~~(SIV000)~~ A daily mission evaluation was initiated during December. Designed to measure the effectiveness of each mission, this function provided the airborne collection section with a recap of daily mission results. It was also useful in indicating trends, both good and bad, relative to equipment and operator performance.³

~~(SIV000)~~ During December, a weekly feedback letter was introduced. The purpose of this letter was to provide the squadron and detachment commanders with an insight into the Phyllis Ann mission effectiveness for the previous week.⁴

Reporting

~~(SIV000)~~ The reporting mission of the organization was initially accomplished by the airborne personnel upon completion of a mission. However, due to the increasing reporting requirements incurred by the continual expansion of the unit's capability, and since personnel programmed to accomplish these additional requirements were arriving, a reporting

section was formed during latter September.⁵ Labeled "Mission Control and Evaluation", the section incorporated all reporting and technical support functions within operations. The section did not prepare Drill Press technical support or the Drill Press Operational Summary. These reports continued to be written by Drill Press analytical personnel.⁶ The section was manned by non-flying 202X0 personnel.^{*} Establishing an around-the-clock schedule when necessary, the section accomplished the following functions:

Position Status Report (PSR)

~~(SIV000)~~ This report was implemented during June 1966. The purpose of the report was to identify master program accountable items, and to report the position status (operational readiness) of Phyllis Ann and Drill Press aircraft to higher headquarters. The 6922d Security Wing Regulation 27-1, dated 22 November 1966, governed the preparation of the PSR.⁷

Phyllis Ann Weekly Summary

~~(SIV000)~~ This report, implemented during May 1966, was designed to keep interested consumers aware of the accomplishments of Phyllis Ann.⁸ This report was issued by the 6994th from June through the first week of November, at which time the 6922d assumed responsibility for its publication.⁹

Daily Operational Management Report (DOMR)

~~(SIV000)~~ The DOMR was implemented on a 30-day test basis on 1 August 1966.¹⁰ Upon completion of the 30-day test, the report was established as a continuing requirement. Interim instructions were contained in the 6922d's OPR-M 02241, 02 Oct 66.

*Two non-flying 292X1 personnel were also assigned to the section, but were later reassigned to another unit due to UMD authorizations.

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USAF Special Sensor Report

~~(SINCOG)~~ Initiated during September at the request of Seventh Air Force (DIOW), this report was designed to provide local consumers with a daily appraisal of the results of Phyllis Ann and Drill Press missions.

ARDF Recovery Report

~~(SINCOG)~~ This report was issued to interested agencies and consumers immediately upon completion of a mission. This report contained all ARDF fixes and cuts obtained by each Phyllis Ann mission. This function was later transferred from ACC to the mission control and evaluation section on 4 September. About 10 December, the responsibility for the publication of these reports was transferred to the airborne collection section where its preparation was accomplished by A292X1 personnel.

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Drill Press Weekly Operational Summary

This report, prepared by the Drill Press analysts, incorporated a SIGINT summary provided by the Army. The operational statistics provided certain consumers with a comprehensive weekly summary of the project's activities.

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CHAPTER IV- MISSION ACCOMPLISHMENTS

~~(S/NV000)~~ Through its ARDF and airborne COMINT collection missions, the 6994th Security Squadron played a vital role in support of combat operations in South Vietnam.¹ During the period of this report, the squadron provided support, directly or indirectly, for approximately 48 major offensive operations. Much of the planning and execution of both ground and air operations stemmed from material provided through the Phyllis Ann and Drill Press programs. Operational planning often relied heavily on intensive ARDF coverage of suspected areas of enemy concentrations.² Through the results obtained from ARDF information, it was possible to pinpoint the probable locations of enemy concentrations; thereby facilitating the establishment of valid boundaries for the actual area of operations.

~~(S/NV000)~~ COMINT, enhanced by ARDF and airborne collection, provided tactical commanders with specific locations of significant targets. By placing these targets under constant ARDF surveillance, COMINT material kept field commanders constantly alert to target movements and plans. It was often possible to determine, to some degree, the impact of tactical operations on enemy activities through ARDF.

~~(S/NV000)~~ Very little discrimination between Air Force and Army ARDF results was made in the after-action reports. The product of ARDF efforts was reported directly to direct support units (DSUs) that were co-located with the Army combat elements. The fusion of the Army and Air Force ARDF results, and the fact that all COMINT collected was analyzed and reported by Army Security Agency units, resulted in limited recognition being given to the Air Force for its contributions. Still, many local and national consumers cited the valuable and outstanding accomplishments of the Phyllis Ann program.

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(U) In order to simplify reporting some of the more significant mission accomplishments, they are presented in chronological order by project.

Drill Press

~~(S/NV000)~~ Until 27 July, Drill Press was supporting the Army's 175th Radio Research Company by providing an extension to their intercept capability of Viet Cong targets in the general vicinity of Saigon. Drill Press positions were specifically tasked against those terminals of the Military Intelligence Bureau, COSVN, known or suspected to be passing exploitable traffic of high intelligence value.

~~(S/NV000)~~ In most instances these targets could be intercepted by the 175th's ground intercept facility; however, the intercept was of such poor quality that corrupt text was causing extensive loss of valuable intelligence.³ After a 28-day period during which 17 significant intelligence reports were issued from Drill Press intercept, the commander of the 175th stated, "Drill Press is providing an estimated 75 per cent of our usable intelligence."

~~(S/NV)~~ On 28 July 1966, the director of intelligence, Seventh Air Force, deployed one Drill Press aircraft to DaNang to fly in support of Operation Hastings which was underway to combat the infiltration of the PAVN 324B NVA Division in the DMZ.⁴ One aircraft continued to support the 175th. The aircraft in the DMZ was specifically targeted against a net reporting on the tactical situation of the operation in an exploitable code system. Drill Press was able to contribute significantly to the COMINT support of the operation.⁵ General W. C. Westmoreland, commander, USMACV, personally cited the Drill Press effort for this achievement.⁶

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~~(SOW)~~ Although it was the general opinion that Drill Press should remain in the DMZ, General McChristian (MACV-J2) personally notified the 509th Radio Research Group of a request that the aircraft be returned from DaNang, and both aircraft be staged against targets in the Phuoc Tu Province in support of Operation Toledo.⁷ This request was honored, and on 10 August, Drill Press began supporting the operation.⁸ The after-action report on the operation cited COMINT, mostly ARDF, as being largely responsible for the ultimate success of this operation.

~~(SOW)~~ On 23 August, consumer interest was centered in the Ia Trang Valley near Fleiku. DIRNSA had fixed the 630th Military Front-- the largest tactical concentration in Southeast Asia-- as being in the area.⁹ Drill Press was deployed here to bolster the extremely limited facilities of Detachment 1, 16th RRU, which was providing support for Operation Paul Revere, underway to combat this force. Initially, the entire Drill Press contingent was deployed to Fleiku AB; however, due to crowded facilities there, the deployment was aborted and the missions staged from Tan Son Nhut with an operational stop at Fleiku upon completion of each mission.¹⁰ And although Drill Press was achieving a high degree of success in this operation,¹¹ the effort was terminated on 23 September due to a higher priority intelligence requirement.¹²

~~(SOW)~~ On 24 September, the entire Drill Press contingent was deployed to DaNang, and on 17 October, continued on to Hue/Phu Bai.¹³ Missions were staged from these areas to the northern Quang Tri Province near the DMZ. The target was the PAVN 324B NVA Division and associated communications. During this period Drill Press accomplished 118 missions; provided USM-808 with a source of intelligence for 10 TACREPs, 9 Spet Reports, and 48 select

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 translations. General Marshall S. Carter, Director, NSA, lauded the Drill
 Press accomplishments in a personal message to General Louis E. Goines, com-
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 mander, USAFSS.

Phyllis Ann

~~(SUVVOC)~~ The Phyllis Ann ARDF effort received even less feedback
 relative to its contributions to the war effort than did Drill Press.
 Numerous statistical accounts were maintained to illustrate the high degree
 of success the project was achieving. However, documentation from consumers
 was limited largely to the most outstanding achievements. 16

~~(SUVVOC)~~ Beginning in late October, arrangements were made locally
 to secure copies of intelligence reports issued from information gained
 from ARDF. Each report was compared with Phyllis Ann operator logs to
 establish whether or not the source was Phyllis Ann. Although the number
 of reports received by the organization through this source was far from
 complete, 122 TACREPs, Spot Reports, and electrical releases were credited
 17
 to Phyllis Ann during the period 23 October through 31 December.

~~(SUVVOC)~~ During July and August, Phyllis Ann provided support for
 several major offensive operations. One operation most clearly illustrated
 the effectiveness of utilizing ARDF in both planning and conducting tactical
 18
 operations. This operation was Operation Toledo. Conducted from 1 August
 through 7 September 1966, it was originally intended as a search and destroy
 operation in the eastern portion of Phuoc Tuy Province. However, no contact
 was made with the enemy in this area. Based exclusively on ARDF results,
 the area of operation was extended west to encompass an area in which
 19
 COMINT had located a Viet Cong division. Throughout the remainder of
 the operation, maneuvering of Allied Forces was based entirely on ARDF.

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And although no significant contact was made with fleeing enemy forces, the operation was termed highly successful.

~~(SCL)~~ During early September, Phyllis Ann aircraft commenced operations in the Fleiku area in support of Operation Paul Revere. ²⁰ Initially the aircraft were staged from Tan Son Nhut, and accomplished an operational stop at Fleiku upon completion of a mission. Shortly thereafter, operations were extended to the DMZ (Operation Prairie), and Laos (Steel-Tiger/Tiger Hound). An operational location was established at DaNang and missions to the Fleiku area were conveniently executed by aircraft staged from Tan Son Nhut.

~~(SCW)~~ This operation continued until late December when the responsibility was assumed by Detachment 1. ²² Army commanders in charge of Operation Paul Revere praised the air support and reconnaissance provided the operation. ²³ In a briefing given to Admiral Sharp on 29 September, General Brown (MACV-J2) also praised COMINT and ARDF support given to operations in the DMZ. ²⁴

~~(SCW)~~ During October, ARDF results contributed significantly to the tactical activities of Operation Attleboro-- the largest offensive of the Vietnam War. ²⁵ Ten B-52 strikes were based entirely on ARDF information. Phyllis Ann ARDF was cited for one significant engagement of the operation. ²⁶

~~(SCW)~~ In November, two significant instances of ARDF effectiveness were cited. On 12 November artillery fire on a Viet Cong Division headquarters was directed from a Phyllis Ann fix. ²⁷ And on 21 November, a ²⁸ convoy was warned of a probable ambush through a Phyllis Ann ARDF fix. Each member of the crew of this aircraft was awarded the Distinguished Flying Cross.

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Chart Eight

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PHYLLIS ANN MISSION SUMMARY

<u>Month</u>	<u>Number Of A/C</u>	<u>Missions</u>	<u>Aborts</u>	<u>Fixes</u>	<u>Fixes Passed To DSU</u>	<u>Hours Flown</u>
Jul	4	25	12	114	90	206.8
Aug	5	87	28	169	128	483.1
Sep	8	138	20	382	291	921.9
Oct	10	246	23	687	484	1589.8
Nov	10	255	25	640	547	1667.1
Dec	10	<u>258</u>	<u>31</u>	<u>667</u>	<u>644</u>	<u>1717.5</u>
		Totals- 1009	139	2659	2184	6586.2

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PHYLLIS ANN CLOSE TACTICAL SUPPORT

<u>Operation</u>	<u>Month</u> (Fixes/Passed to DSU)					
	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Holsworthy	2/1	11/11				
El Paso II	35/28					
Yorktown	7/6					
El Paso III		10/9				
Paul Revere II		1/1	19/10	29/18		
Paul Revere III				52/1		
Paul Revere IV						3/3
John Paul Jones		1/1				
Toledo		33/23	13/13			
Oahu		17/0	4/0			
Attleboro				78/75	87/85	
Byrd				12/3	11/11	28/22
Fairfax/Charleston Lenaki/Brevertton					22/22	15/14
Atlanta/Ingram/Canary					19/19	29/21
Tigerhound					16/9	
Hayman					1/1	
Prairie				127/29	138/111	13/13
Steel Tiger					10/8	
Kailua-Kalihi				4/4	13/12	
Ingram					9/9	
Mississippi					1/0	
Bismark/Nisqualey/Damburg						32/32

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Chart Nine (cond)

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<u>Operation</u>	<u>Month</u> Fixes/Passed to DSU)					<u>Dec</u>
	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	
Fitchburg						4
Duck						19
Picket/Damtan 81						7
Thayer			7/1			
Meadow Lark/Robin			4/3	11/11		
Bathurst				23/28		
Sunset Beach				31/31		
Tulsa				13/11		
Shenandoa				32/26		
Attleboro/Shenandoa				47/45		
Bathurst/Queanbeyan				14/11		
Seward				7/8		
Atlantic				18/17		

HQ AF ISR Agency

Security Office

Reviewed by: *jed*

Date: 1 Apr 14

Classification: UNCLAS

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