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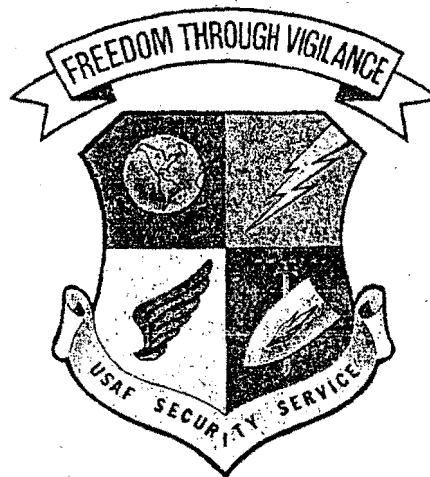
OF THE

USAFSS EFFORT IN THE KOREAN ACTION

JUNE 1950 - OCTOBER 1953

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HQ UNITED STATES AIR FORCE SECURITY SERVICE, SAN ANTONIO, TEXAS 78243

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ANALYSIS OF AFSS EFFORT IN THE KOREAN ACTION

JUNE 1950

to

OCTOBER 1953

HQS USAFSS TSC No 58-09525.

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1

TABLE OF CONTENTS

<u>CHAPTER</u>		<u>PAGE</u>
I	AFSS Philosophy, Capability And Operations	
	On D-Day.....	1
	Philosophy And Missions.....	2
	Inherited Philosophy.....	2
	Inherited Missions.....	3
	Acquired Mission.....	6
	Capability.....	7
	Personnel (1st RSM).....	7
	Personnel (Hq USAFSS/ODO).....	9
	Facilities (1st RSM).....	10
	Facilities (Headquarters USAFSS/ODO).....	12
	Operations.....	13
	Operations (1st RSM).....	14
	Operations (Headquarters USAFSS/ODO).....	19
	Air Force Requirements Registered.....	22
	Operational Control (Degree of Autonomy).....	25
	Inter-Service Relations (1st RSM).....	28
II	D-Day to 31 December 1950.....	31
	COMINT Cognizance And Contribution.....	31
	1st RSM/USAFSS Reactions.....	31
	FEAF/ASAPAC/1st RSM Reaction.....	32
	USAF/USAFSS/1st RSM Reactions.....	33
	FEAF/RSM/Navy Reactions.....	34
	Summary Comments.....	35
	Initial USAFSS Approach.....	36
	Project Willy.....	36
	Summary Conclusions.....	44
	Initial RSM Approach.....	45
	The Analysis Translation Effort.....	46
	Weather Support Effort.....	49
	Reporting Requirements and Services.....	53
	Control-Analysis Procedures.....	57
	Expansion of RSM Facilities.....	58

Copy 1 of 1 Pages

~~TOP SECRET EIDER~~

2 of 192 Pages

ii

~~TOP SECRET EIDER~~

<u>CHAPTER</u>		<u>PAGE</u>
II	(Cont'd)	
	COMINT Production in Korea.....	65
	South Korean COMINT.....	65
	Detachment "C" COMINT.....	67
	Dissemination and Exploitation Problems.....	71
	Headquarters Support.....	77
	Logistic Support.....	78
	Analysis Support.....	80
	Field Control.....	84
III	December 1950 To The Deployment Of The 6920th Security Group.....	89
	Development And Modification of Control Concepts.	90
	1st RSM Field Control Viewpoint.....	91
	Hq USAFSS Field Control Policy.....	92
	Existing Control Agreement Revised.....	94
	Development And Modification of Production Concepts.....	99
	Group' Concept Influence.....	100
	Influence of Weather Problems.....	102
	Influence of the Chinese Air Problem.....	110
	Influence of Tactical Requirements.....	118
	Implementation of Concepts and Services.....	120
	Early Intelligence Service.....	121
	Beginning of the USAFSS Voice Effort.....	123
	Outstanding Requirement Fulfilled.....	124
	Birth of "Y" Service.....	126
	Organization of Team I.....	127
	Expansion of Voice Intercept Service.....	132
	TACOMINT Concept Crystallized.....	133
	Organization of Team I (Advanced).....	134
	Deployment of Team II.....	137
	Development of Team III.....	141
	Exploitation Capability Inaugurated.....	142
	The Kaesong Conference.....	144
	The Aftermath of the Conference Episode.....	150
	Headquarters USAFSS Support.....	153

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

111

CHAPTER

PAGE

IV	Assumption of Command by Group to Consolidation of the CHICOM Air Effort.....	159
	Rise of Functional Operational Practices.....	160
	Climax of 1st RSM Control and Operations.....	160
	Initial Group Control.....	162
	Initial Group Operations.....	170
	Consolidation of CHICOM Weather Effort.....	173
	Early Weather Consolidation Negotiations.....	174
	Group Assumes Production Control of Joint Effort.....	176
	USAFSS Presses for Further Control of Weather Effort.....	177
	Functional Operation of CCA Effort.....	179
	1st RSM Challenges Production Concept.....	180
	Group Proposes Centralized CCA Operation.....	181
	Joint CCA Operations Initiated.....	183
	AFSA Concurs With Consolidation Trend.....	185
	ASAPAC Proposal Rejected.....	187
	CCA Group Operations.....	188
	ASAPAC Phases Out of CCA Effort.....	190
	Close Support Operations and Development Problems.....	191
	TACOMINT Service in Korea.....	191
	Ferret Coverage Service.....	200
	Developmental Intercept Effort.....	208
V	Consolidation Of The ChiCom Air Effort To The Revision of NSCID No. 9.....	213
	Augmentation of TACOMINT Capability.....	213
	Deployment of New Units.....	214
	Reorganization of Established Units.....	216
	Survey of Additional Sites.....	216
	Procurement and Improvement of Communications Facilities.....	217
	Development of the VHF Effort.....	222
	Reassessment of TACOMINT Effort.....	229
	Technical Support Issue Resolved.....	230
	Direct Communications Issue Resolved.....	232

~~TOP SECRET EIDER~~

iv

~~TOP SECRET EIDER~~

<u>CHAPTER</u>	<u>PAGE</u>
V (Cont'd)	
Reporting Requirements and Procedures Modified..	235
Realignment of COMINT Weather Effort.....	241
TACOMINT Service Recognized.....	244
Modification of TACOMINT Techniques and Services..	257
Modification of TACOMINT Techniques.....	257
Weather Operations.....	265
Coverage of Ferret Operations.....	269
Group Production Techniques Enlarged and Refined.....	270
Group Operations Refined.....	274
Detachment 151 Operations Improved.....	281
Air Force Utilization of TACOMINT.....	283
VI Revision of NSCID No. 9 To The Truce.....	287
National COMINT Effort Revised.....	287
COMINT Production Responsibilities Determined...	288
Operational or Mission Control Delegated.....	290
Field Operational Autonomy Modified.....	291
Group Collection and Control Effort.....	291
Group Technical Reporting Effort.....	296
Weather Operation Effort.....	300
Close Support COMINT Status Reviewed.....	302
COMINT Support in Korea.....	303
VHF-RDF Close Support COMINT Effort.....	310
ROK Participation in the COMINT Effort.....	312
Redeployment of Close Support COMINT Facilities.	315
COMINT Development and Planning Effort.....	318
General VHF Intercept Effort.....	318
Ground VHF Intercept Effort.....	320
Airborne VHF Effort.....	322
Low and VLF Effort.....	326
ECM and Ferret Effort.....	327
Theater Close COMINT Support Plans.....	332
Theater Close Support COMINT Furnished.....	334

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

v

CHAPTER

PAGE

VII	The Aftermath.....	337
	Effect of Armistice on USAFSS COMINT Operations....	337
	Immediate Planning For The Truce.....	337
	Post Armistice COMINT Requirements—Far East.....	339
	Peacetime Close Support COMINT Operations.....	341
	Post Armistice VHF Effort.....	346
	Post Armistice Weather Effort.....	348
	Post Armistice Field Production Effort.....	351
	Post Armistice COMINT Negotiations.....	352
	Conclusions Drawn.....	354
	Early Physical Security Conclusions.....	354
	Early Exploitation Conclusions.....	355
	Early Intelligence Requirements Conclusions.....	356
	Early Conclusions Concerning TACOMINT Support....	356
	Outstanding Conclusions Drawn.....	357
	Influence Exerted by Experience Gained.....	359
	Summary.....	362
	Glossary.....	365

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

vii

FOREWORD

This Study was requested by the Director of the National Security Agency for the purpose of surveying the USAFSS COMINT effort during the Korean conflict. The Study is an integrated account of the Air Force Security Service activity in the Far East, presented as an operational thesis to enable the National Security Agency to analyze USAFSS COMINT operations under wartime conditions.

The analysis reflects the work-a-day philosophy of the Air Force Security Service units and attempts to present their tactical point of view. It indicates, in a relative manner, the conditioning effects that their successes and failures had on the contemporary COMINT doctrines. With the exception of the first chapter, which relates the Air Force COMINT capability and doctrine on D-Day, the remainder of the Study is concerned with the establishment of an Air Combat COMINT Service, the modification of operational concepts, the reconciliation of tactical and strategic requirements and the integration of the COMINT effort. In preparing the study emphasis was placed on Operational Autonomy, viz., responsiveness to combat requirements versus rigidity of control, timeliness of tactical reports versus completeness of evaluated intelligence, and exploitation of tactical communications information versus utilization of Strategic COMINT.

Chapter II through VI and various conclusions summarized in the final Chapter were compiled from records created during the conflict which related directly to the Air Force Security Service effort. These records were augmented, and in some instances interpreted, by the Air Force personnel who had participated or who were actually engaged in the establishment and operation of the Tactical COMINT service. In some instances, the absence of primary source material conditioned the content of the Study. Certain pertinent records created by other Service agencies were not available in this Headquarters. In these instances secondary source material was utilized in an effort to develop necessary continuity. Therefore, this analysis is subject to revision in light of additional information which will provide a more complete account of the Air Force Security Service effort during the Korean conflict.

Grateful acknowledgement is given to the many individuals who contributed research, information, substantiating documents, constructive criticism and administrative support in the preparation of this Study. Many of these contributions were the results of effort expended by the individuals beyond their normal duty hours. Among

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Page 5 of 192 Pages

~~TOP SECRET EIDER~~

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those individuals who gave valuable assistance were Lt Colonel Charles W. Shepard, Lt Colonel Lowell R. Jameson, Major Stanley S. Szumski, Major George I. Mason, Captain William C. Schwitzgebel, Captain Lloyd E. Dow, Captain Richard L. Margraf, Captain Richard D. Machelski, Lt Harry C. Zimmerman, Mr. Ralph J. McCartney, Mr. Eldwin B. Bell, and Mrs. Jessie L. Guentert. Special acknowledgement is given to Major William P. Fife, Major Robert O. Brooks, Major Jabe E. Bailey, Major Lewis D. Nixon, and various unnamed individuals of the 6920th Security Group and its subordinate units for their exceptional contributions. By careful analysis and augmentation of substantiating documents and critical review of the manuscript, Majors Fife, Brooks, Bailey, and Nixon did much to improve the quality of the Study. The compilation of the Study was also facilitated by the contributions of various individuals, assigned to the 6920th Security Group and its subordinate units, who provided a tactical interpretation of many significant events and problems that related to USAFSS COMINT activities during the Korean action.

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ANALYSIS OF AFSS EFFORT IN THE KOREAN ACTION

CHAPTER I

AFSS Philosophy, Capability and Operations on D-Day

The Air Force Security Service (USAFSS) had been in existence one year, eight months, and four days when the North Korean Military Regime invaded the Republic of South Korea.¹ Further, USAFSS had only exercised operational control over a field capability for one year, four months, and thirteen days when the invasion occurred.² The COMINT capability of USAFSS at that time was composed of skeleton field facilities (two RSM's overseas and one in the Zone of Interior) transferred from the Department of Army and a newly assembled and untrained Headquarters activity. Its primary functions during this short period of existence had been those required in planning for the establishment of an Air Force COMINT capability. Its secondary functions were directed toward keeping the inherited field facilities operating during the transitional period. Its philosophy of operation was an amalgamation of ideas and concepts derived from Army, Navy, and Air Force operations and general intelligence experience, and its mission was a combination of inherited and acquired functions molded by forces as varied as those which influenced its philosophy.

1. Ltr., DAF to CG Major Air Commands, Subj: "Functions of the USAF Security Service", 20 Oct 1948. s.d. 1.

2. TWX, CG FEAF to CO, Johnson AFB, et al., Cite: NR AFSS 9, 15 Oct 1949. s.d. 2.

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6

~~TOP SECRET EIDER~~

Page 6 of 102 Pages

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PHILOSOPHY AND MISSIONS

Inherited Philosophy. The First Radio Squadron, Mobile (1st RSM), one of the most active field capabilities inherited by the USAFSS, was activated on 14 February 1942 as the 138th Signal Radio Intelligence Company. In August 1943, it was transported from Australia to Port Moresby, New Guinea, to begin its mission in support of the Pacific War against the Japanese Forces—that of providing the 5th Air Force with intelligence on enemy Air Services. The 1st RSM, so designated by the Army Air Corps, on 18 April 1944, continued this mission throughout the New Guinea, Dutch New Guinea, and Philippines campaigns. Its operations during this period, under the same Commanding Officer, were in support of the operations of the Far East Air Forces (FEAF), and the 5th Air Force. By 14 July 1945, the Headquarters of the 1st RSM had advanced to Okinawa and its seven detachments were deployed to cover the entire 5th Air Force operational area.

During this three-year period of activity the 1st RSM had developed the following general operational pattern. Its mission was the accumulation, processing, and preparation of intelligence relating to the activity of the enemy Air Services, both Army and Navy. The sections immediately comprising squadron operations were radio intercept, direction finding, analysis, and intelligence evaluation. All intelligence gathered by the detachments was forwarded to the squadron which made the final integration and dissemination.

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Following the surrender of the Japanese forces in August 1945, the Army Security Agency (ASA) was established and absorbed all signal intelligence units, including the Army Air Force Radio Squadrons, Mobile. The COMINT units were operated under the direct control of the Chief, ASA.³ The 1st RSM was relieved from its assignment with the 5th Air Force and reassigned to ASA, Pacific (ASAPAC). The Squadron Headquarters was located at Irumagawa, Japan, by then. The RSM continued to operate under the guidance of ASAPAC until February 1949. Its missions were assigned directly by ASAPAC, its personnel* were assigned by ASA, and its collected data was forwarded to ASAPAC for processing and evaluation. Further, the training conducted by the squadron during this period paralleled its operational philosophy.⁴

Inherited Missions. Following the surrender of the Japanese forces, the 1st RSM, as previously stated, began operations in accordance with directives from ASA whose primary COMINT missions were:⁵

The interception of radio and wire traffic, the location and identification of radio stations by electrical means, the analysis of radio and wire traffic, and the solution of code and cipher messages. . . .

-
3. Ltr Order, WD to CG's AAF's et al., Subj: Establishment of the Army Security Agency, 6 Sept 1945. s.d. 3.
 4. Historical Data Report, 1st RSM, 1 Feb - 31 Jul 1949. The Unit Histories cited herein are filed at the Air University and Headquarters AFSS, except those classified higher than SECRET which are filed at Headquarters AFSS.
 5. Ltr Order, WD to CG's AAF's et al., Subj: Establishment of the Army Security Agency, 6 Sept 1945. s.d. 3.

* Army Air Force personnel began rotating and separating from the service shortly after the Japanese surrender.

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4

At that time, the mission of the 1st RSM was changed from that of collecting radio intelligence on the enemy air services to that of obtaining general radio intelligence which would assist in protecting the United States against any danger which might arise.⁶ This type of operations was conducted in a limited degree throughout 1946.

However, during 1947, the RSM was directed to concentrate intercept and RDF effort on Chinese and Soviet Union targets. One of the two RSM detachments was assigned the mission of monitoring the Tokyo end of a [25x3] The other detachment was deployed to Hokkaido Island, Japan, to monitor [25x3] stations operating in that area. The material derived from intercept was transmitted to ASAPAC by teletype or courier.

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By July 1948 the effort of the 1st RSM had become almost exclusively devoted to CW intercept and RDF of Soviet Union targets. The only exceptions to the above mission were monitoring [25x3] tions on Hokkaido and attempting to locate jamming stations which were effectively interfering with Voice of America broadcasts. This major operational mission continued in effect until February 1949, and the traffic obtained was forwarded to ASAPAC for processing and evaluation.⁷

6. Historical Data Report, 1st RSM, 1 Feb - 30 Jul 1949.

7. Historical Data Report, 1st RSM, 1 Feb - 30 Jul 1949.

* Information furnished by Maj Wharton L. McGreer, Directorate of Plans, USAFSS. Maj McGreer was CO of the 1st RSM during this period.

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On 28 January 1949, the 1st RSM, along with other similar units, was transferred from the Department of Army to the Department of Air Force and assigned to the USAFSS.⁸ Following the transfer and re-assignment of the 1st RSM, its mission was again modified. Actually, the modification was begun in early April 1948. During the same month, the Air Force Office of Intelligence (AFOIN), in working out plans for the informal activation of an Air Force Security Group (AFSG), crystallized the mission of this proposed Air Force COMINT capability as follows:⁹

The interception and traffic analysis of foreign tactical-type traffic of interest to the Air Force, location and identification by electrical means of stations passing this traffic, and the cryptanalysis of that portion of this intercept which is exploitable in the field.

This primary mission was carried over into the USAFSS Mission Letter and published on 20 October 1948.¹⁰ Also, historical records indicate this information was divulged to overseas RSMs* and discussed with FEAF and the United States Air Forces, Europe (USAFE) during late 1948 and early 1949. Further, a second specific reference to a specific Air Force mission assignment for the 1st RSM was made by the Squadron Historian in late August 1949. At that time, the Officer recorded the primary mission of the unit as the interception and analysis of foreign

8. Letter Order, DA and AF, Subj: Transfer of 1st, 2nd and 8th RSMs and 136th Radio Security Detachment from Department of Army to Department of Air Force, 28 Jan 1949. s.d. 4.

9. Draft Ltr., DAF to CG's all Major Air Commands, Subj: Establishment of the Air Force Security Group, 10 Jun 1948. s.d. 5.

10. Ltr., DAF to CG's all Major Air Commands, Subj: Functions of the USAF Security Service, 20 Oct 1948. s.d. 1.

* The 2nd RSM was in Germany. After the transfer, its theater customer was USAFE.

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8

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tactical-type communications of interest to the Air Force, i.e., FEAF. In addition, the unit Historian wrote that the intercept emphasis had recently shifted from interception and location of Soviet ground and air transmitting stations to interception and identification of Soviet air-to-air and air-to-ground communications.¹¹ This was the prevailing mission for the remainder of 1949.

Acquired Mission. However, before USAFSS and its field capabilities became operationally established, the Air Force COMINT mission was expanded and the primary emphasis was again shifted. A large part of these changes resulted from the creation of the Armed Forces Security Agency (AFSA) and the subsequent negotiations relative to a division of COMINT production responsibilities. During January 1950, after four months of drafting, coordinating, and revising its plan for fulfilling the responsibilities seemingly delegated by JCS 2010/6,* USAFSS advanced a plan for the accomplishment of the Air Force COMINT mission, which was later approved by the Vice Chief of Staff and the Office of the Secretary of Defense.¹² The mission objectives were:¹³ (1) to provide the Chief of Staff, USAF, the Commanding Generals, Continental Air Command (CONAC), Strategic Air Command (SAC), and Air Defense

11. Historical Data Report, 1st RSM, 1 - 31 Aug 1949.

12. Historical Data Report, Directorate of Operations, Jan-Feb 1950.

13. Staff Study, Hq USAFSS, Title: Mission Capabilities of the USAF Security Service, 5 Dec 1949. s.d. 6.

* JCS 2010/6 delegated a COMINT mission to AFSA which in part duplicated the COMINT mission delegated to USAFSS by the Air Force.

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7

Command (ADC), and USAF Commands overseas with maximum advanced warning of an impending air strike against the United States by the Soviet Long Range Air Force; (2) to develop and utilize the Air Combat COMINT facilities of AFSS in concert with and support of other COMINT organizations, so that it (USAFSS) will function as an advanced warning medium as well as the agency for collection, analysis, and dissemination of Air COMINT pertaining to the Soviet Air Force.

Therefore, within a period of five years (September 1945 - June 1950), the concept governing the operations of the inherited and developed Air Force COMINT capability had ranged from tactical to strategic, back to tactical and then to early warning. The missions had paralleled this philosophy in so far as they could be developed under existing circumstances. Hence, USAFSS entered June 1950 operating under an early warning philosophy and a mission concentrated primarily on Soviet Long Range Air Force communications.

CAPABILITY

The capability of USAFSS on 24 June 1950, if measured by the degree of accomplishment of the newly approved Air Force COMINT mission, was relatively small. Most of the inherited equipment and facilities were in poor condition and the personnel strength and experience levels were low.

Personnel (1st RSM): As previously stated, the rotation and separation process immediately following the Japanese surrender

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Page.....9 of 192 Pages

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practically annihilated the 1st RSM operations. Moreover, the squadron strength remained low until June 1948.¹⁴ From the date the squadron was transferred to USAFSS until June 1950, the RSM strength was as follows:

<u>Month</u>	<u>Officers</u>	<u>Airmen</u>
Feb 1949	6	106
Aug 1949	6	96
Dec 1949	10	184
Jun 1950	11	245

NOTE: The squadron was operating under TO&E 1-1027 which authorized 17 officers and 285 airmen.

Although the personnel strength of the 1st gradually increased throughout February 1949-June 1950, the experience level of the assigned personnel continued to decrease. This resulted from rotation of experienced Air Force personnel and transfer of experienced Army personnel, who were scheduled to be returned to ASAPAC by 30 June 1949. Consequently, the RSM obtained permission from ASAPAC to keep 27 Army personnel attached after the deadline in order to maintain minimum squadron operations. Further, by November 1949, the RSM had determined that 18 of its 19 experienced operators would rotate by April 1950 and four of its assigned officers would rotate by March 1950.¹⁵ Therefore, ASAPAC again attached Army personnel (25 radio operators) to the 1st RSM to relieve the personnel problem in operations and to provide employment for the personnel until ASAPAC

14. Historical Data Report, 1st RSM, 1 Feb - 31 Jul 1949.

15. Ltr to CO, USAFSS, Subj: TDY to Japan and Pacific, 6 June 1950. s.d. 7.

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9

could absorb them.¹⁶

Personnel (Hq USAFSS/ODO). The USAF Security Service was established around a nucleus of 11 officers and a small number of enlisted and civilian clerical personnel, the majority of which was furnished by ASA. When USAFSS became an Air Command, it was authorized, exclusive of its assigned units, 34 officers, 6 airmen, and 116 civilians.¹⁷ From the date of its move from Arlington Hall to Brooks AFB until 30 June 1950, its assigned strength was as follows:

Personnel Strength Headquarters USAFSS

<u>MONTH</u>	<u>OFFICERS</u>	<u>AIRMEN</u>	<u>CIVILIANS</u>
Apr 1949	48	130	30
Dec 1949	114	263	206
Jun 1950	157	438	387

NOTE: This rapid growth in 1950 resulted from a personnel priority of Group I, Precedence I, awarded USAFSS by USAF, 29 Dec 1949.

The personnel buildup in the Directorate of Operations began in April 1949 and continued as follows:

Personnel Strength ODO

<u>MONTH</u>	<u>OFFICERS</u>	<u>AIRMEN</u>	<u>CIVILIANS</u>
Apr 1949	6		4
Aug 1949	18	12	25
Feb 1950	50	95	119
Jun 1950	66	148	222

NOTE: The majority of the assigned personnel, as of June 1950, were recent graduates of service schools and were on OJT status.

16. Historical Data Report, 1st RSM, May-June 1950.

17. Hq USAFSS GO No. 3, 28 Nov 1948.

Copy 10

Page 10 of 10 Pages

~~TOP SECRET EIDER~~

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Another factor also influenced the effective utilization of assigned personnel during this period. Many trained personnel could not be utilized because their cryptographic clearances had not been completed. Available records indicate the following progress on USAFSS personnel clearances during the period:

Personnel Clearance Status, 1st RSM:

<u>MONTH</u>	<u>NUMBER CLEARED</u>
Aug 1949	54
Dec 1949	96
May 1950	139

Command-Wide Personnel Clearance Status:

Jan 1950	281
Jul 1950	1376

NOTE: Key personnel within the Directorate of Operations during October 1949-June 1950 state that the number of indoctrinated personnel utilized amounted to approximately 48 per cent of the assigned strength.

Facilities (1st RSM:) Following the assignment of the 1st RSM to ASAPAC in December 1945, the majority of the operational equipment was destroyed by a fire which consumed the operations building. The remaining facilities were augmented during late 1947 by a 1st RSM construction program which provided the RSM one rhombic and six sloping "V" antennas. Buildings housing the RSM facilities in February 1949 were deemed adequate for current needs, but not for future requirements. The equipment, non TO&E issue in some instances, was viewed as semi-fixed. Also, it was classified as "being in a poor condition as a result of age and extended operations."¹⁸ This handicap

18. Historical Data Report, 1st RSM, 1 Feb - 31 Jul 1949.

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11

was aggravated further by shortage of qualified maintenance personnel during the first half of 1949. At one time, the RSM had only one airman--a radio operator--who possessed some knowledge of radio maintenance. Consequently, he was pressed into repair service.

Moreover, the actual location of the RSM was deemed poor. A high noise level factor lowered the reception efficiency and the location of the antenna farm created "conditions of inferior reception."¹⁹ Therefore, several site surveys were conducted during the summer of 1949. As a result of the above factors, the RSM requested FEAF to obtain a site on Honshu Island for relocation of the Squadron.²⁰ Although the squadron was not relocated, the reception factor was improved somewhat during September 1949 by an engineering team from Headquarters, USAFSS. The team was able to increase the incoming signal strength, but could not eliminate the QRN and QRM.²¹ During October 1949, the RSM requested and received permission to establish an RDF unit at Misawa. The unit (Team "A") took over existing AACS/RDF facilities at Misawa on 26 October 1949.²² However, the teletype circuit between Johnson and Team "A" was not completed until

19. Historical Data Report, 1st RSM, Aug 1949.

20. Ibid.

21. Ibid., Sept 1949.

22. Ibid., Oct 1949.

11

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Late November 1949. Also, the squadron installed a telephone line between Operations Section and the RDF site near Johnson.

In November 1949 FEAF approved the establishment of an RSM facility at Wakkanai. This unit was to be attached to an AC&W unit.²³ It was originally scheduled to perform a weather mission. However, this facility did not begin operations until after the Korean action began. Finally, the RSM acquired a circuit between Johnson and Headquarters, FEAF in October 1949. It already had a circuit to Brooks AFB.

The RSM development effort immediately prior to the outbreak of hostilities was directed toward improving and augmenting existing facilities. The 1st RSM had approximately 15 positions installed when it was transferred to the Air Force. By April 1949 the installed positions had increased to 23. This figure was reduced to 19 by late November. Further, only six of the positions were being utilized.²⁴ In May 1950, the RSM had 14 (CW) positions available for mission assignment. The positions were increased to 16 by early June by the installation of two CW positions at Misawa (Team "A"). These two positions were only operated two-thirds of the time.²⁵

Facilities (Headquarters USAFSS/ODC). Although Headquarters, USAFSS, was engaged in rehabilitation of facilities at Brooks Air

23. Ibid., Nov 1949.

24. Ibid., Oct 1949.

25. Memo, Subj: Minutes of 6th Meeting of IPC, 10 Jul 1950. s.d. 8.

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Force Base throughout 1949, the Directorate of Operations had obtained sufficient buildings and communications equipment by April 1949 to start operations, i.e., the Communications Center and Field Control Branch.* During November IBM equipment for processing purposes was procured and installed in ODO. Hence, during the first half of 1950, the Directorate of Operations was primarily concerned with improving, organizing, and augmenting existing facilities.

OPERATIONS

Meanwhile, the operational capacity of USAFSS was relatively low in June 1950. Its operational practices were influenced by prevailing COMINT production concepts as well as by scarcity of facilities. In respect to this latter influence, AFSA and USAFSS reconciled some of the differences between their COMINT production concepts in March 1950 on the assumption that USAFSS would not be capable of fulfilling its mission for 18 months. In respect to the prevailing COMINT production concepts, the operational practices actually emphasized Zone of Interior processing and reporting. That is, raw traffic was forwarded by electrical means to Zone of Interior COMINT centers for processing. Theoretically, the preliminary reports would be an early warning service. Yet, the data level of these reports was

* Information furnished by M/Sgt P. C. Wright, Directorate of Plans, USAFSS. Sgt Wright was sent down from AHS in April 1949 to help set up the Communications Center and remained in ODO to assist Major McGreer in establishing the Collection Division.

12

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14

seldom under 72 hours. Hence, USAFSS devoted some early effort toward developing a field unit COMINT production capability.

Operations (1st RSM): One of the first functions of Squadron operations to be rehabilitated and re-emphasized after the transfer of the RSM to the Air Force was the analysis activity, for this function had atrophied somewhat under the prevailing operational practices. During April 1949, a Traffic Analysis Section was reactivated. It was producing Analysis Reports by July.²⁶ In addition, the Evaluation Officer, 1st RSM, began supplying the A-2, FEAF with a small amount of intelligence data during this period.²⁷ Actually, the Squadron submitted its first air report to FEAF in late June 1949.

During September-October 1949, the 1st RSM established a Supplemental Research Section (SRS) in Headquarters, FEAF, a service previously agreed upon by the Commanding Officer, USAFSS and the A-2, FEAF. This Section was manned by one officer and three airmen. It was scheduled to furnish the A-2 special intelligence information with other data to provide evaluated intelligence: ASAPAC certified the OIC of the Section as a cryptographic Security Officer and supplied the crypto-system for use between the SRS and 1st RSM. The circuit

26. Historical Data Report, 1st RSM, 1 Feb - 31 Jul 1949.

27. Ibid., Oct 1949.

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in use was the one provided for transmission of 1st RSM traffic back to the Zone of Interior. During November 1949, the Squadron began submitting Traffic Analysis Reports to the SRS every 10 days. The reports were normally aircraft counts from Safety of Flight Traffic.* Moreover, USAFSS began placing requirements on the RSM for field reports which later developed into Daily Intelligence Summaries, Ten-Day Intelligence Summaries, and Item Reports.**

By October 1949, the RSM had established a small cryptanalysis effort—one officer and four airmen. In addition, during October 1949, the 1st RSM began passing its traffic analysis reports, Daily Coverage Reports, Daily RDF Reports, and raw traffic to ASAPAC.²⁸ In turn, ASAPAC began passing RDF Bearing Reports to the RSM to augment the bearings being received from Team "A" and the RDF Unit near Johnson AFB. However, the majority of the ASAPAC Bearing Reports later proved of little value in fulfilling USAFSS requirements. Further, the loss of one RDF officer and the shortage of equipment and qualified personnel hampered the RDF Operations throughout December 1949. These latter factors were causing the RDF Reports from Team "A" to

28. Historical Data Report, 1st RSM, Nov 1949.

* Information furnished by Maj. Jabe E. Bailey, Directorate of Plans, USAFSS. Major Bailey was assigned to FEAF at that time and was employed in the A-2 activity in connection with the SRS.

** Information furnished by Major Robert O. Brooks, Deputy Chief, Production, AFSOC. Major Brooks was one of the key officers in the AFSS analysis-reporting effort during August 1949-June 1950.

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16

arrive at Johnson three days late. Actually, the squadron was forced to borrow an RDF equipment repairman from ASAPAC to keep the available RDF equipment in operation during this period.²⁹ Finally, during December 1949, the operational control of the RSM Communications Section, as well as all activity in the restricted area, was vested in the Operations Officer.³⁰

Hence, during the first 11 months of operations as an Air Force unit, the 1st RSM had become more than a paper organization. Though it was not fully manned or equipped, it was operating a headquarters collection (intercept) and processing (analysis) facility which was producing some intelligence and technical data on Soviet Air targets for USAFSS, FEAF, and ASAPAC. Also, the RSM was operating two RDF facilities and had obtained permission to establish a Weather Intercept facility. Finally, the Squadron was operating an outlet (the SRS in Headquarters, FEAF) for its COMINT products.

Actually, the State-of-Readiness report for the squadron, submitted 19 December 1949, recorded the following degree of combat readiness:³¹

1st Radio Squadron Mobile/Johnson/Jameson/6/3/5/10/8.
Due to personnel shortages, training level of personnel, and shortage of direction finding equipment, overall combat readiness of Unit estimated to be 65%. Large number of airmen in OJT status and overages in SSN plus several unauthorized SSN required for functioning of Squadron results in 33% authorized personnel assigned. Combat readiness of personnel 52% due to personnel shortages and existing overages in unauthorized SSN.

29. Ibid., Dec 1949.

30. Ibid.

31. Ltr., Hq USAFSS to Dir of Stat Svs, Hq USAF, 19 Dec 1949. s.d. 9.

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Additional operational progress was recorded by the 1st RSM during January-June 1950. As a matter of record, the RSM intercept activity (on Soviet Safety of Flight nets) had progressed to a point by early May 1950 that the existing communications facilities back to the Zone of Interior were seriously overloaded. Hence, the RSM discontinued transmission of certain types of chatter and commenced skeletonizing the traffic for transmission. At that time the major USAFSS analytical effort, the 1st RSM and ODO, was in essence a tabulation of aircraft callsigns heard on the navigational networks and the format of the reports was similar to a Technical Summary. In this respect, two of the 1st RSM's 14 positions were devoted to the administrative nets of the Tenth Air Army throughout the first half of 1950, and first priority was given to the intercept and analysis of the most exploitable traffic, viz., Soviet Safety of Flight chatter.

During March 1950, the 1st RSM received two Voice Intercept operators. Nevertheless, the squadron did not have the equipment, facilities, or assignment for such an operation. Therefore, these operators were attached to the Navy for utilization and training in voice intercept techniques. In respect to this effort, the RSM allowed one person, a trick chief, to experiment in voice intercept during this period. This effort collected some tower chatter and techniques which later proved valuable.

Finally, in early June 1950, the RSM was charged with the responsibility of alert reporting by Headquarters, USAFSS. This directive

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required the RSM to report unusual and "flash" type activity directly to the Major Theater Air Commands as well as to the Zone of Interior COMINT centers. It also placed emphasis on field evaluation in that it established different degrees of alerts and provided for increasing the frequency and precedence of the reports if the situation warranted such action.³²

As for the production capacity, or operational readiness, of the 1st RSM on 24 June 1950, the Squadron Historian of that period recorded the following retrospective observation:³³

The intensification of our activities and increased commitments since the start of the Korean war has proven conclusively that the Squadron was not ready to handle a wartime mission. Had we been given an additional six months to acquire and train personnel, establish our detachments, and organize under a new TO&E, the Squadron could have been ready for any eventuality. The most serious deficiency was personnel - shortage of skilled personnel and shortage of officer and supervisory NCO's.

This estimate was supported somewhat by the Squadron Combat Readiness Report submitted 22 June 1950. This report estimated the overall effectiveness of the unit at 65 per cent and the personnel readiness at 61 per cent. The primary retarding factor listed at that date was clearances for assigned personnel.³⁴

32. Hq USAFSS CIOP No. 1, 6 Jun 1950. s.d. 10.

33. Historical Data Report, 1st RSM, May-Jun 1950.

34. TWX, Hq USAFSS to CIS, USAF, Cite: SZ 469, 22 Jun 1950. s.d. 11.

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19

Operations (Headquarters, USAFSS/ODO). The Directorate of Operations, USAFSS, was organized at AHS in February 1949. Some of the Personnel within the Directorate of Operations were transferred to Brooks AFB, during April-July 1949. Its immediate activity was directed toward obtaining qualified personnel and technical back-up documents and establishing a functional plan for ODO. The Directorate had been organized with three divisions, i.e., Collection, Processing, and Weather. However, the Weather effort was never transferred to Brooks AFB. Consequently, ODO was primarily concerned with developing the COMINT collection and processing effort. By August 1949, the Collection Division had organized three branches--Field Control, Requirements, and Communications. The Processing Division had also organized three branches--TA, CA, and TI.* During August, the processing Division began "dry-run" operations on existing navigational traffic, which were designed to train civilian and military analysts in the basic principles of Traffic Analysis.** During September 1949, the Processing Division produced its first intelligence for USAF consumption. This report was a recap of unusual activity of the

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P.L. 86-36
EO 3.3b(3)

* Information furnished by Maj Wharton L. McGreer. Maj McGreer was Chief of the Collection Division, ODO at that time.

** Information furnished by Mr. Gerald Shipman, Analyst AFSCC. Mr. Shipman was one of the first five airmen to arrive in ODO in 1949 and was associated with the processing effort of that period.

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EO 3.3b(3)

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during 1-20 September 1949.³⁵ It was based on 1st RSM traffic and compiled as a special project. It did not represent a full operational status.³⁶ Two other reports were published by the Processing Division during October, which were also basic Traffic Analysis Reports on Soviet Navigational Air. During October 1949, the Processing Division adopted an SOP for its reports which prescribed three types, i.e., Technical, Traffic Intelligence, and Special Intelligence. A Traffic Analysis Section was organized in November 1949. It was working on six projects by the end of the month, which have been described as basic Traffic Analysis concentrated primarily on Soviet Safety of Flight Traffic and some rudimentary work on Soviet Long Range and Tactical Air net traffic.* Also, during the September-December period an RDF Branch, Machine Processing Section, and Cryptanalysis Section, were organized.³⁷ The early RDF effort was limited to monitoring reports submitted by the 1st RSM. The branch did not begin plotting bearings until late December 1949. Nor did the IBM Section begin operations until January 1950.³⁸

35. Ltr., Hq USAFSS to CO 1st RSM, Subj: Russian Air Traffic Intelligence Summary Number One, 23 Jan 1950. s.d. 12.

36. Historical Data Report, Directorate of Operations, 1-30 Sep 1949.

37. Ibid.

38. Ibid., 1-28 Feb 1950.

* Information furnished by Maj Stanley S. Szumski, Directorate of Operations. Major Szumski joined ODO in the summer of 1949 and was associated with the embryonic USAFSS Analysis effort during this period.

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21

Some improvement in ODO production capacity was recorded during the first half of 1950. The IBM Section began operations in January on routine Traffic Analysis Listings, Daily Operator Log Listings, and RDF Bearing Listings. By late January, a second shift had been added in an attempt to deplete the backlog of traffic which had increased to an average rate of 62,000 groups a day. Further, a Traffic Identification Branch was established and a small radio telephone project organized. During January, the overall analysis effort was expanded to eight special projects and overall production was accelerated by implementing a seven-day work schedule in the Processing Division. However, administrative problems and lack of qualified personnel caused this schedule to be discontinued in March.³⁹

Throughout the March-June period, ODO continued to operate under the concept of providing early warning for Air Commands and Forces. Its production practices also continued to be those already in existence, with minor additions, i.e., the Directorate established a PVO unit during April 1950 and a Traffic Development Section prior to June. In this respect, a summary of the operational efficiency of ODO immediately prior to July 1950, compiled in July by a newly assigned Chief of the Analysis Division, ODO, viewed the lack of a clearly defined mission as the primary factor retarding the production progress of that unit. At that time, the officer stated that the ODO production activity had vacillated between being purely a research and backup effort

39. Ibid., Mar-Apr 1950.

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to doing all processing of all traffic submitted by the RSM's. The summary also disclosed that the traffic was arriving at Headquarters, USAFSS, normally 48 hours late and garbled as high as 20 per cent.⁴⁰

During the March-June period, another analysis of the USAFSS COMINT production activity, compiled by the Director of Operations for the Chief of Staff, USAFSS, estimated that the current USAFSS products were of virtually no value to a striking Air Force, but that the intercepted material could, if exploited, delineate the workings of the Soviet Safety of Flight and Air Defense Systems and furnish aircraft characteristics.⁴¹ The estimate also pointed out that ASA was already producing such intelligence for the Air Force from traffic collected by USAFSS because ASA had the production capability and USAFSS did not.

Air Force Requirements Registered. A great deal of effort expended by USAFSS during the early part of 1950 was directed toward integrating the USAFSS mission into those of other Air Commands, i.e., CONAC, SAC, FEAR, and USAFE. This was attempted by determining the needs of the Air Commands and directing the USAFSS development toward those requirements.

According to the records available at Headquarters USAFSS, the first formal COMINT requirement was placed on USAFSS by USAF, Europe,

40. R&R, OAD to ODO, ATTN: Col Laird, Subj: Summary of Problems and their Solution as Affects the Operational Efficiency of OAD, 27 Jul 1950. s.d. 13.

41. Historical Data Report, Directorate of Operations, 1 Mar - 30 Apr 1950.

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~~TOP SECRET EIDER~~

23

18 October 1949. This requirement was for general intelligence which might indicate the imminence of hostilities.⁴² However, informal liaison between the 1st RSM and the A-2, FEAF, predated the USAF, Europe request and served the same purpose. The next requirement was placed on USAFSS by AFOIN in early February 1950. This requirement was for information concerning the Soviet Long Range Air Force, Atomic Energy Facilities, Weather, Air Defense System, and Air Research and Development. At the same time, AFOIN instructed USAFSS to "impress upon the appropriate agencies in the most positive terms that the need for this information is of utmost urgency and in the final analysis most vital to US Security."⁴³

In early March 1950, SAC, also placed a requirement on USAFSS. This request was for positive information on USSR targets in the interior. At that time SAC stated that the COMINT being received was satisfactory for the peripheral areas.⁴⁴ In addition, Headquarters USAF published its general Air Intelligence Requirements on 27 April. These requirements were listed by priority, the first of which was "intelligence on the Soviet Union and its Satellites which directly affect the security of the Continental United States against Air Attack."⁴⁵ This was further broken down as follows:

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- 42. Ltr., USAFSSLO, USAFE TO CG USAFSS, Subj: USAFE List of Indications of Imminence of Hostilities, 18 Oct 1949. s.d. 14.
 - 43. Memo for AFSS by SRE, Subj: COMINT Requirements, 20 Feb 1950. s.d. 15.
 - 44. Ltr., Hq SAC to CG USAFSS, Subj: Communications Intelligence Requirements, 8 Mar 1950. s.d. 16.
 - 45. Ltr., Hq USAF to CG USAFSS, Subj: General Air Intelligence Requirements by Priorities, 22 May 1950. s.d. 17.

~~TOP SECRET EIDER~~

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1. Soviet Air Capabilities against overseas units of the USAF Strategic Air Forces, Overseas air bases of strategic importance, and lines of communications necessary for direct support of the Strategic Air Mission.

2. Soviet Air Defense Capabilities and effectiveness.

During May 1950, one other direct requirement and one indirect requirement was placed on USAFSS. The latter one, submitted by GHQ, Far East, to the Chief, ASAPAC, on 9 May, primarily concerned the 1st RSM. This request instructed ASAPAC to take necessary action to secure the maximum obtainable intercept coverage on Soviet Air-ground voice transmissions and Chinese Communist Military and air communications. At that time, the Chief, P&E Branch, TI Division, wrote:⁴⁶

It is probable that the Chinese Communists will attempt the invasion of Formosa sometime between early summer and the end of the year. In view of the further strong possibility that the strategic planning and tactical execution of such an assault will be under the supervision of Soviet advisors, the observable external features of the operations may reflect current Soviet conceptions of joint employment of forces. . . .

The letter also informed ASAPAC that the 1st RSM was establishing a mobile unit to monitor Soviet air-ground voice transmissions, and suggested that ASAPAC coordinate the exploitation with the RSM to prevent unnecessary duplication and to insure that the efforts of both organizations were complimentary and mutually beneficial. Further,

46. Ltr., APO 500 (GHQ, FEC) to Chief, ASAPAC, Subj: Communications Intelligence Requirements of GHQ, FEC, 9 May 1950. s.d. 18.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

25

the letter instructed ASAPAC to discontinue submission of COMINT summaries which reported the results of traffic analysis of the 1st RSM intercept of Soviet air-ground CW contacts, because the RSM was already fulfilling that requirement. Last, the letter established the format and contents of a Voice Intercept Report and requested frequent liaison among members of ASAPAC, 1st RSM, and G-2, GRQ. The 1st RSM was an addressee on the letter.

The direct requirement was placed on Headquarters, USAFSS, by CONAC on 17 May 1950. This request was for any "positive identification of the imminence of hostilities and specifically indications of a Soviet attack against the continental United States."⁴⁷

Operational Control (Degree of Autonomy). The control and direction of USAFSS facilities and effort immediately following the transfer of the RSM's to USAFSS was naturally reflected in the Air Force concept of a COMINT service. Even the USAFSS mission letter provided for field exploitation and service by the RSM's. Also, the RSM's were characteristically sensitive and responsive to their principal theater consumers. At one point, USAFSS was considering the possibility of allowing theater air commanders to place mission assignments against 50 per cent of the RSM facilities. This type of operational control doctrine generally prevailed until the creation of AFSA.

47. Ltr., Hq. CONAC to CG, USAFSS, Subj: Communications Intelligence Requirements, 17 May 1950. s.d. 19.

~~TOP SECRET EIDER~~

18

~~TOP SECRET EIDER~~

However, the promulgation of JCS 2010 and 2010/6 theoretically subordinated the Air Force COMINT Activity to a national COMINT agency (AFSA) and officially charged the Air Force with the responsibility of providing the national COMINT agency with certain facilities. Before the end of 1949 AFSA began exerting some influence on mission assignments by reviewing such assignments and placing others via Headquarters, USAFSS. This long range or strategic interest of AFSA sometimes caused its intercept assignments against RSM facilities to be viewed as relatively unimportant from the theater requirement standpoint.

Although the 2d RSM and its chief consumer registered exception to the new operational control doctrine in October 1949, the 1st RSM crystallized the rapidly developing problem thus in summarizing its operational progress during December 1949:⁴⁸

It is felt that a freer hand should be given the operational personnel of this organization to control the priority of mission assignments. Our contributions to the Far East Air Forces (practically the only results of our work which are known outside our own organization) depend almost entirely on our obtaining good and complete coverage on certain missions. Yet, these missions were placed in number 8 and 9 priority by Headquarters, United States Air Force Security Service. . . . Because of the shortage of trained operators, it was extremely difficult at times to obtain this copy which we feel is vital to our influence and reputation.

During late February 1950, an AFSS Intercept Planning Committee was established within ODO to "plan for COMINT mission assignments."⁴⁹

48. Historical Data Report, 1st RSM, Dec 1949.

49. RAR, ODO to OOD, Subj: Organization of IPC, 2 Mar 1950. s.d. 20.

~~TOP SECRET EIDER~~

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This committee was active throughout the first half of 1950. It later became the USAFSS agency most concerned with resolution of the AFSA-USAFSS mission assignment proposals. Actually, the first formal control and processing agreement adopted by AFSA and USAFSS resulted from several weeks of negotiations concerning a suitable interpretation of JCS 2010/6. The agreement, adopted early in May 1950, allowed AFSA to control directly 10 per cent of the USAFSS positions (CW) and participate in the Control (furnish technical backup directly and place intercept assignments via USAFSS) of 33-1/3 per cent of the remaining 90 per cent of USAFSS mobile intercept facilities. In addition, USAFSS would furnish copies of all of its intercept to AFSA unless AFSA stipulated a specific exception.* Actually, the issues which retarded the promulgation of this agreement did not concern the control of collection facilities as much as they did the resolution of different COMINT production concepts, i.e., AFSA vs USAFSS vs RSM processing.⁵⁰ In relation to control of collection facilities, the agreement did charge the 1st RSM with the sole responsibility of covering the Russian Far Eastern Navigational Networks.⁵¹

By early June 1950, the operational control concept within ODO had become somewhat similar to the one advocated by the 1st RSM in

50. Memo for Record, Hq USAFSS, 4 May 1950. s.d. 21.

51. RLR, AFSA GH2 to CE, Subj: AFSS Intercept and Traffic Forwarding, 25 May 1950. s.d. 22.

* Information furnished by Maj Wharton L. McGreer.

19

~~TOP SECRET EIDER~~

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December 1949. During June the Control Division, ODO, stressed the necessity for permitting squadron commanders maximum control of their operational details and pointed out that ODO should furnish only technical advice and guidance of a general nature. Further, the Commanding Officer, 1st RSM, again informed USAFSS that the mission assignments presented a problem in allocation of positions, viz., some cases could be given 24-hour coverage to the exclusion of others within the same priority. At that time, AFSA was advocating a rigid "man-hours-per-day" position control which USAFSS did not care to adopt. Consequently, the 1st RSM was instructed to use its own discretion in working out details of position allocation.⁵²

Inter-Service Relations (1st RSM). Following the transfer of the 1st RSM to USAFSS, a division of responsibilities (intercept, processing, and servicing) was accomplished by ASAPAC and the squadron. In addition, ASAPAC allowed experienced army personnel to remain within the 1st RSM for several weeks in order to maintain minimum operations. Furthermore, during 1949, ASAPAC trained many Air Force personnel in technical specialties. In this respect, ASAPAC trained the personnel who established the first cryptanalysis effort of the RSM. ASAPAC also furnished many of the supplies necessary for the effort.⁵³ Moreover, ASAPAC provided the RSM with equipment maintenance personnel and experienced operators during late 1949 to permit the squadron to maintain maximum RDF and intercept operations.

52. Historical Data Report, Directorate of Operations, May-Jun 1950.

53. Ibid., 1st RSM, Oct 1949.

~~TOP SECRET EIDER~~

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29

Further, the RSM maintained close liaison with the A-2, FFAF, Headquarters, 5th Air Force, the 314th Air Division, and Headquarters 35th Fighter Wing throughout 1949. Concerning this relationship the Squadron Historian wrote:⁵⁴

All the above, without exception, have been most cooperative and any reasonable request has been given proper attention. The squadron has a goodwill which on many occasions has proven invaluable, e.g., the 5th AF assigned AP's to the squadron on detached service in the summer of 1949.

Regarding COMINT inter-service relationships, action was begun in October 1949 to establish a regular meeting of operations personnel from the 1st RSM, ASAPAC, and Navy. This idea was implemented and the initial meeting was held 27 January 1950 to "discuss mutual technical operational problems in communications intelligence."⁵⁵ The conferences continued to be held frequently at 1st RSM, ASAPAC, and Yokosuka (Navy) throughout the first half of 1950.⁵⁶

54. Ibid., 1st RSM, Nov 1949.

55. Ibid., Jan-Feb 1950.

56. Ibid., May-Jun 1950.

~~TOP SECRET EIDER~~

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31

CHAPTER II

D-Day to 31 December 1950

Only six months and five days elapsed during this period, according to the calendar. However, according to the chronicles of man, many concepts, ideas, and practices relative to the military situation and operations in Korea also became items of historical importance only. This statement is especially applicable to the science of communications intelligence as practiced by the Air Force on D-Day.

COMINT COGNIZANCE AND CONTRIBUTION

Without some knowledge and understanding of the COMINT production concepts and capability on D-Day, the following account of COMINT awareness, reactions and contributions during the first three weeks of the conflict would sound unduly amateurish. However, in view of the restrictive philosophy, military concepts and COMINT capability of that period, the account should sound quite professional.

1st RSM/USAFSS Reactions. On 25 June the 1st RSM informed Headquarters, USAFSS, about the invasion¹ and Headquarters, USAFSS, on the same day, replied as follows:²

Refur TS-054, submit four times daily, until return to normal, operational reports covering conditions enumerated in reference

1. TWX, 1st RSM to Hq USAFSS, Cite: TS-054, 25 Jun 1950.
2. TWX, Hq USAFSS to CO 1st RSM, Cite ST-769, 25 Jun 1950. s.d. 23.

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Page.....21 of 192 Pages

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message including results of special search for Communist Air activity in Korea. Devote minimum of two positions to Korean Communist air activity search, exploiting any favorable results. Effort will not exceed two additional positions, making a total of four positions maximum. Current mission assignment priority listing cut from bottom to accommodate Korean activity. Especially desire any solid indications of Communist Air-Ground support. Check with ASAPAC and Yokosuka to determine possibility of ground circuits developing into air-ground circuits. Also advise if ASAPAC had advanced information of Korean Communist attack and if yes, did ASAPAC alert you? Sole basis these instructions and questions by this Headquarters is newspaper reports. If press reports in this country exaggerated, you are authorized to modify these instructions to conform with information available.

FEAF/ASAPAC/1st RSM Reaction. On 27 June the SRS, FEAF, informed the 1st RSM that:³

Deputy for Intelligence has ordered that 1st RSM go into a full war alert status, effective immediately. All indications of impending hostilities should be kept in mind at all times. Any information of Soviet movements, especially during the next 24 hours should be sent immediately. Information which pertains to Soviet movement against Japan should be sent "Flash Precedence". This office will be open any hour, day or night, to take care of incoming messages.

The following day, 28 June, the RSM forwarded to FEAF a report on the activity of the 3rd Long Range Air Army and queried ASAPAC and Navy on any reflection they might have noted on impending hostilities prior to the launching of the North Korean invasion. The same day ASAPAC replied:⁴

No obvious indications in traffic intercepted of Korean Communist attack. Noted radio silence on voice transmissions

3. TWX, SRS, FEAF to 1st RSM, Cite: MH-113, 27 Jun 1950. s.d. 24.

4. TWX, Hq, ASAPAC to 1st RSM, Cite: TLJ-076, 28 Jun 1950. s.d. 25.

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33

P.L. 86-36
EO 3.3b(3)

22-26 June with silence broken 27 June. Except for following two incidents air circuits were normal: 25 June 25x3 Station Dog, believed to be in Kanko area, was more active than normal. On 26 June slight traffic increase on 25x3 since message No. 46 was observed. Number normally not higher than 30-35.

A message from the SRS, FEAF to the 1st RSM on 29 June indicates there was no COMINT pre-warning of the North Korean attack from either of the three Service agencies and the status of the current COMINT service to FEAF. The message follows:⁵

During the radio silence of 3rd Long Range Admin Net, what was activity of the 9th and 10th Air Army nets; when aircraft were being heard on unknown frequency, what was the activity on other nets; would the possible recon type aircraft be transport type to transfer material to North Korea, which may explain the unknown frequency? Information in your message /Report on 3rd Long Range Activity forwarded to SRS, FEAF by 1st RSM on 28 June/ quite interesting, request an analysis of 9th, 10th and 3rd Long Range Safety of Flight nets for comparison with this one /above report on 3rd Long Range/ and that daily summary of aircraft days for each net. New Subject: SSO first informed that Yokosuka reported as of 0630K that all nets had become silent. No times were given. Can you confirm or has he just woke up to your 3rd Long Range activity? This is first information from Yokosuka to GHQ and as yet none from ASAPAC since Korean incident.

USAF/USAFSS/1st RSM Reactions. Meanwhile, Headquarters, USAF, registered its reaction on 28 June. At that time, Headquarters, USAFSS sent the following message to the 1st RSM:⁶

USAF is extremely interested in maintaining fullest possible coverage of Soviet Air Force activity in the Far East for any reaction to U.S. Forces in Korea.

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5. TWX, SRS, FEAF to 1st RSM, Cite: MH 199, 29 Jun 1950. s.d. 26.
 6. TWX, Hq, USAFSS to GO, 1st RSM, Cite: ST 780. s.d. 27.

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USAFSS also forwarded a list of known North Korean airfields which were WW II airfields. Consequently, the 1st RSM replied as follows, on 30 June:⁷

Amber alert, no change. Summary and analysis of Korean situation to date follows. Analysis of traffic since Korean offensive began on 25 June has failed to show any definite trends to the effect that Soviet forces are going to support the North Koreans in any active all-out manner. It is believed that the Soviets did not expect the United States to intervene with armed might. . . .

FEAF/RSM/Navy Reactions. Finally, on 14 July, SRS, FEAF, queried the three COMINT agencies on the North Korean Air Force, as follows:⁸

CG FEAF urgently requires the following information: Where are the aircraft of North Korea based; if camouflaged fields are used where are they located; are aircraft flying to Manchuria or other parts for re-service or refueling and then returning to North Korea for combat; if so, from what fields are they using for re-service; assuming radio silence is absolute, what fields in North Korea were formerly engaged in heavy aircraft traffic. Probably best indications from your source are air movements into or out of North Korea; aircraft heard contacting ground stations in North Korea or near airfields adjacent thereto. Even though traffic today may be at a standstill, what is your estimate as to airfields most frequently contacted prior to hostilities? Please list all indications and label firm, probable or possible. This information will be checked with open source material. Negative or positive report is required at 1100K 15 July. Please pass to ASAPAC and NAVCOM with request for assistance if necessary.

7. TWX, 1st RSM to Hq, USAFSS, Cite: (None) 30 Jun 1950. s.d. 28.

8. TWX, SRS, FEAF to CO 1st RSM, Cite: MH 117, 14 Jul 1950. s.d. 29.

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35

The RSM passed the request on to the other agencies and, on 14 July, replied to SRS, FEAF, as follows:⁹ "Send us the open source material so we'll know what and where to look."

Although ASAPAC answered, the message was not available to the writer. However, the Navy's answer, given on 15 July, was as follows:¹⁰

P.L. 86-36
EO 3.3b(3)

The only recent information regarding air bases on North Korea adjacent areas was derived from study of intercepted communications from Soviet Naval air transport flights between [REDACTED] prior to hostilities. These aircraft were indicated as using the following air bases: Firm: Heijo, Kanko and Genzan. Probable: Seishin and Shingishu. Possible: Rashin and Joshin. There have been no indications of Soviet Naval air activity in North Korea since January 1949, when fighter regiments based at Genzan were apparently disbanded or transferred to other unknown bases.

Summary Comments:* Thus, spoke the voice of established COMINT during the first three weeks of the Korean action. This voice could well be the echoing emphasis of current intelligence concepts and requirements and traditional practices which concentrated maximum effort on Russian Navigational nets and sacrificed depth of analysis in the field for Volume T/A at the Headquarters level. The expected tip-off did not appear on

9. Historical Data Report, 1st RSM, Jul-Sept 1950.

10. TWX, NAVCOM to CO, 1st RSM, Cite: SM3, 15 Jul 1950. s.d. 30.

* This summary represents the combined opinions of many of the USAFSS personnel of that and subsequent periods as expressed in the various documents researched by the Historian and expressed to the Historian personally.

~~TOP SECRET EIDER~~ 23

~~TOP SECRET EIDER~~

navigational nets. Hence, FEAF had to ask a lot of questions whose answers should have been provided long before, and Army, Navy and RSM had to look for the answers in Russian traffic, and the Russian traffic did not furnish indications of the North Korean offensive.

INITIAL USAFSS APPROACH

Although the 1st RSM organized a COMINT team for deployment to Korea immediately after being alerted by FEAF on 27 June, the initial approach to the newly created Air Force COMINT problem was originated at Headquarters, USAFSS. By 29 June the 1st RSM had not received authority to establish a COMINT effort in Korea. Consequently, FEAF wired Headquarters USAFSS and requested a service in Korea.*

Project Willy. As a consequence of the above wire and the prevailing concept of COMINT production and dissemination, Headquarters, USAFSS adopted an interim approach to the problem. This measure was designed to obviate the necessity for placing indoctrinated personnel in a position susceptible to capture by the enemy and to furnish North Korean tactical voice information for combat operations of the

* Information furnished by Major Jabe E. Bailey. Major Bailey assisted in preparation of the messages for the A-2, FEAF.

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~~TOP SECRET EIDER~~

37

5th Air Force. It was established in a wire to 1st RSM on 1 July,
which stated: ¹¹

Have obtained air priority 2-D for Captain Charles Willis and Lt Edward Murray who will arrive Fairfield-Suisun 3 July and proceed to 1st RSM for 30 days TDY to assist your analysis effort. Investigate the possibility of obtaining 8 loyal, English-speaking South Koreans for purpose of manning 2 intercept positions in Korea under cover of U. S. military advisors to Korea. If concurrence obtained from Rogers, A-2 FEAF, this Hqs authorizes Lt Murray to proceed to Korea for purpose of implementing intercept effort. Utmost discretion required and, if good possibility of capture exists, Murray cannot go to Korea. Authority granted for Murray only as he recently returned from Europe and is not known locally in Japan. Supply of intercept equipment, courier on traffic return, etc., will be your responsibility.

Upon arrival in Japan, the Commanding Officer, 1st RSM, and two visiting officers immediately entered into negotiations with the A-2, FEAF, which were designed to implement the covert project as planned by Headquarters, USAFSS. The following is an account of the agreements, adopted by the officers and preliminary action resulting therefrom as transmitted to Headquarters, USAFSS on 25 July 1950: ¹²

Herewith details on Murray project: On arrival in Japan Murray, Willis, and Jameson reported to Colonel Rogers. Rogers was briefed on necessity of high classification for project and non-exposure of Murray to capture. Rogers was in full accord and enthusiastic and advised that 8 Koreans of unquestionable loyalty were awaiting Murray's arrival in Korea, but he would not release Murray until such time

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11. TWX, Hq USAFSS to CO 1st RSM, Cite ST-801, 30 Jun 1950. s.d. 31.
12. TWX, 1st RSM to Hq USAFSS, Cite: TS 338, 25 Jul 1950. s.d. 32.

~~TOP SECRET EIDER~~

24

~~TOP SECRET EIDER~~

as the 25th Division could be committed and our lines firmly established. At that time, Murray would report to Colonel Simpson at 5th AF. Simpson was expecting Murray and was to provide full support. Murray was to report all operational matters to General Partridge direct. Required equipment was to have all 1st RSM markings removed, then turned over to 5th AF for shipment. No communications between Murray and 1st RSM were authorized. All material was to be passed via special channel from 5th AF to FEAF. Murray departed for Korea 15 July and reported to Simpson and Partridge. Partridge was very enthusiastic and stated this project just what he wanted. Have no further info from Murray, but believe he departed from Korea about 19 July. . .

Headquarters, USAFSS, concurred with these proposed operational procedures for the project on 3 August and instructed the RSM to replace the project officer with an officer who possessed intelligence and linguistic experience.¹³ However, the same day, the 1st RSM wired Headquarters, USAFSS, that:¹⁴

Voice intercept produced negative results. All facilities now devoted to CW under control of Koreans. . . Results of decrypts sent to FEAF by OSI for whom Koreans work. Channels established for passing codes and information to RSM from Detachment in Korea. Maximum effort now being made to exploit that material.

Actually, and this information was taken from the Project Report submitted by the Project Officer upon his return to Headquarters, USAFSS, the USAFSS officer arrived in Korea 15 July and procured two airmen and eight South Koreans. The airmen were furnished by the 5th Air Force and the Koreans were furnished by the Commander, District 8, OSI, who

13. TWX, Hq, USAFSS to CO 1st RSM, Cite: ST-940, 2 Aug 1950. s.d. 33.

14. TWX, CO, 1st RSM to Hq, USAFSS, Cite: TS-409, 3 Aug 1950. s.d. 34.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

39

already had a CW intercept effort in operation. The project equipment arrived at Taegu on 19 July. The same day, project Willy was established in a compound controlled by the 5th Air Force. After one week of operation, the results of the voice effort continued to be negative, a fact attributed to the absence of air operations on the part of the North Koreans.

Meanwhile, the OSI CW-intercept unit, with the aid of one South Korean radio operator and one South Korean translator, was producing tactical information. This information was being disseminated to FEAF and GHQ. Further, the OSI Detachment had acquired some North Korean code books. Consequently, the USAFSS officer turned his project capability over to the OSI unit by authority of the 5th Air Force and took the code books back to Japan on 1 August.¹⁵

Concurrently, the OSI-Willy COMINT began to flow to action and information agencies through non-COMINT channels.* Also, the difference between established concepts and exigent practices began to appear. These conclusions were evident in the flurry of wires exchanged among FEAF, USAFSS, and the 1st RSM on 4 and 5 August. On 4 August the RSM fired the opening round, so to speak, with the

15. Memo, DCS/Operations to CO USAFSS, Subj: Report of TDY, 1 Sept 1950. s.d. 35.

* At that time, neither FEAF, 5th Air Force nor the 1st RSM had adequate communications established to expeditiously and securely transmit COMINT in accordance with the classified doctrine for such activity. Hence, the OSI classified its material secret and disseminated it through channels approved for material bearing this classification.

~~TOP SECRET EIDER~~ 25

40

~~TOP SECRET EIDER~~

following messages to Headquarters, USAFSS: ¹⁶

Plans changed by fluid combat situation. Murray returning to Korea immediately. Attempting to exploit Korean traffic at this station. Have urgent requirement for Korean Translator, cleared, officer, airman, or civilian. Complete exploitation requires translator and dictionaries. Attempting to obtain translator locally. . . .

On the same day, Headquarters USAFSS dispatched two messages relative to the status and effects of Project Willy. The first one went to the A-2, FEAF. It stated: ¹⁷

Wish to point out that OSI dissemination of results of Project Willy as outlined has the following deficiencies: (a) material being received in Washington through non Air Force channels as soon, if not before, receipt at 1st RSM and this Headquarters; (b) local exploitation by 1st RSM not receiving full Air Force support due to concurrent dissemination to other agencies by OSI; (c) continued receipt results of this project in Washington through non Air Force channels prejudicial to this Headquarters efforts. Appreciate your advise means by which this project may be brought under joint A-2, FEAF and AFSS scrutiny as originally planned.

At the same time, Headquarters, USAFSS sent the following message to the 1st RSM: ¹⁸

Results of Project Willy [combined] very gratifying. . . Reference channels which results of project are being disseminated. Wish to point out that OSI dissemination results in receipt of data in Washington before available to 1st RSM or this Headquarters. Certain you are aware of deficiencies in OSI dissemination since much

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16. TWX, CO, 1st RSM to Hq USAFSS, Cite: TS-418, 4 Aug 1950. s.d. 36.
17. TWX, Hq USAFSS to A-2, FEAF, Cite: ST-901, 3 Aug 1950. s.d. 37.
18. TWX, Hq USAFSS to CO, 1st RSM, Cite: ST-945, 3 Aug 1950. s.d. 38.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

41

value thus lost through failure to provide means of evaluation and maintenance of day-to-day status of results of project from standpoint of broad COMINT picture. Moreover, dissemination of COMINT through other than secure channels could be embarrassing. Realize of course, that discussion of these features with OSI and FEAF one of the most delicate nature. However, appreciate you discuss the matter with Colonel Rogers in effort to: a. Determine present OSI dissemination list; b. Manner in which material is being disseminated. . . ; c. Secure Rogers reaction to present arrangements and if he be displeased, solicit his request for any assistance this Hq can provide in arriving at more desirable and secure procedure for handling project data after it is in condition to hand over to Project Officer.

The following day, the A-2, FEAF, replied to the USAFSS query as follows:
19

Concur with all three points. OSI prepared and disseminated to OSI-IG, FEAF and OSI, Hq USAF/ first reports of intercept unknown to this Hq prior to arrival of Project Willy. OIC of Project Willy learned of OSI function and joined forces, pooling his equipment since OSI was already going concern with South Korean personnel obtaining some success. Coordination with OSI Director, further merger two functions with results that info obtained is classified Top Secret and forwarded this Hq direct to A-2. Local dissemination is made by OIC Willy, to General Partridge, who probably informs General Walker. Though General Partridge is briefed, this info is provided cover for field dissemination. Info disseminated locally has no communications tie-in with project except Top Secret report from OSI Director in Korea to A-2, FEAF. OIC, Willy, upon return to Korea will have full control over all future dissemination of results. . . . For your info, ASAPAC received first two OSI reports through OHQ ATIS channels. Inasmuch as ASAPAC is presently monitoring Korean circuits from Japan, and has trained Korean linguist assigned their Hq., see no reason why technical data should not passed to them for further assistance as of now. ASAPAC is unaware of FEAF or BSM connection with Project. . .

19. TWX, FEAF, A-2 to CO, USAFSS, Cite: MH-202, 5 Aug 50. s.d. 39.

~~TOP SECRET EIDER~~

26

DOCID: 3737095

42

~~TOP SECRET EIDER~~

Subsequently (on 12 August) the USAFSS project officer was instructed by FEAF to return to Korea. At the same time, FEAF A-2 passed the following wire to Headquarters, USAFSS.²⁰

Lt Murray is proceeding back to Korea to assume overall direction of Project Willy. OSI is being relieved of this function with all equipment, personnel, and documents to become Murray's responsibility and he will direct all activities. All results obtained will be given to Captain Harris, Special Security Officer, GHQ, who is presently in Korea to brief indoctrinated personnel. After briefing, local personnel, SSO will transmit info thru his channels to SSP, GHQ, who will transmit it to 1st RSM,* ASAFAC, and indoctrinated personnel. Above measure taken to insure maximum security and preclude discontinuance of Project.**

Five days later (on 17 August) the A-2, FEAF, dispatched the following message to Headquarters USAFSS which terminated the initial USAFSS effort in Korea.²¹

Ref Project Willy: There are now three radio intercept teams operating in Korea for U.N. Forces, these teams are operated by U.S. representatives in Korea. Eight Army Signal ^{When} ~~by~~ Kim Murray reported to Korea ^{and found} results were already being procured by OSI, Korea. ^{he} he pooled equipment and joined forces. Murray returned shortly

20. TWX, FEAF A-2 to CO USAFSS, Cite: MH-217, 12 Aug 1950. s.d. 40.

21. TWX, A-2 FEAF to CO USAFSS, Cite: MH-224, 17 Aug 1950. s.d. 41.

* SSR Tokyo gave some of the material to USAFSSLNO, FEAF, who did send a copy of material received to 1st RSM and Hq USAFSS. That statement was made by Major Jabe E. Bailey. Major Bailey was the assistant USAFSSLNO, FEAF, at that time.

** The first Air Force SSO facility in Korea was established in June 1951.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

43

thereafter bringing code books and technical data back to squadron. While [redacted] was in Japan, OSI representative in Korea relayed some info to FEAF and GHQ thru irregular channels, none of which was being received by 1st RSM. Murray was again sent to Korea to take full charge of the local OSI intercept unit.

*Colonel is
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[redacted] on General Banfills' orders and with the concurrence of the SSR-GHQ. Instructions were sent by FEAF Director, OSI to Director of OSI in Korea to comply with classified letter of instructions from Banfill to Murray. Upon Murray's arrival in Korea, he apparently found that local OSI representative was reluctant to relinquish control, since all three units had been consolidated during his [redacted] absence under the overall direction of the local OSI representative, who reported directly to Eighth Army G-2. The local OSI Director and Eighth Army G-2 sent query to GHQ, G-2, requesting clarification of status and that a reply coordinated with FEAF be relayed. G-2, GHQ was appraised [redacted] of facts and ordered Lt Col Rubin from ASAPAC to go to Korea for purpose of making first hand report. Rubin presently in Korea. At 0945K, 17 August Murray telephoned and stated that G-2, GHQ had replied to the joint query and in effect told Murray to keep hands off the monitoring project. Thereupon, Murray was ordered by this office [redacted] to catch next plane back to Japan.

The above account of the collapse of USAFSS' initial entrance in Korea is essentially the same as the one submitted by the project officer. While the USAFSS officer was in Japan, the OSI unit did consolidate its capability (four ROKAF operators) with a similar CW intercept effort (sixteen ROKNAV operators) from Pusan. This large unit from Pusan was under the joint control of Commander Kim, ROK; G-2, 8th Army, and representatives of the G-2, GHQ, FEC. Its products were disseminated to the 8th Army, but not to the 5th Air Force prior to the consolidation. In respect to the joint effort, EUSAK was actually furnishing the major portion of the capability.

~~TOP SECRET EIDER~~ 27

114

~~TOP SECRET EIDER~~

Therefore, EUSAK felt that it should share equally in the control of the unit. Hence, 5th Air Force acquiesced in order to receive the combined products.²² However, on 18 August the Naval unit reverted to EUSAK control. Thus, the OSI effort, in essence, became a South Korean (Cho) effort, which was absorbed by Detachment "C", 1st RSM, upon its entry into the Korean action.

Summary Conclusions.* The idea was excellent, but the method (covert) used retarded the USAFSS COMINT effort in Korea. Further, the Air Force COMINT agency at that time did not have the capability in the Far East (technical and collateral backup for depth analysis, SSO facilities and communications channels) to supply the Tactical Air Commanders with the timely intelligence required. The factors, plus the restrictive concept of COMINT operations, combined to form a negative attitude on the part of some of the theater consumers. While the official COMINT people faltered, the intelligence officers on the scene organized their own COMINT service and did not want to trade it for the restrictive operation proposed by the COMINT professionals!

22. Memo, DCS/Operations to CO, USAFSS, Subj: Report of TDY, 1 Sept 1950. s.d. 35.

* These conclusions represent the retrospective views of many of the USAFSS officers associated with Project Willy as expressed individually and collectively to the Historian personally and in many documents researched by the Historian. Although these retrospective opinions are admittedly colored by successful operations following the collapse of Project Willy, they are easily reconciled with the many comments recorded about the project in Aug-Nov 1950.

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45

INITIAL RSM APPROACH

Actually, one result of the termination of Project Willy was the accelerated intelligence production effort recorded by the 1st RSM. When the OIC of Willy returned to Japan on 1 August with the North Korean code book, the squadron signified its entry into the action in the following wire to Headquarters, USAFSS:²³

We are now using 2 twenty-four hour positions for Korean search in hopes of exploiting that material. In addition, 4 practice positions are aiding in the search. This necessitates curtailed copy of regular assignment. Request consideration of this situation in August mission. We need 4 positions controlled locally for theater exploitation. New subject: Request Korean and Chinese dictionaries soonest. Also urgently request all 8 vols of "Preliminary MIS Gazetteer of the USSR" published by CIA. Map supplies in theater are limited therefore request any applicable maps available your Hq. Collateral intelligence sources also limited. Request distribution "Air Force Intelligence Summaries" and any other applicable collateral.

The following day, as previously stated, the RSM also informed Headquarters, USAFSS about the negative results of the original Project Willy idea, and stated that maximum effort was being made to exploit such material as was being received from the OSI unit in Korea.²⁴

Again, on the 4th day of August, the squadron requested support for the establishment of a Korean processing capability in Japan as a substitute for Willy. At that time, the RSM stated:²⁵

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23. TWX, CO 1st RSM to Hq, USAFSS, Cite: TS-406, 2 Aug 1950. s.d. 42.
24. TWX, CO 1st RSM to Hq, USAFSS, Cite: TS-409, 3 Aug 1950. s.d. 34.
25. TWX, CO 1st RSM to Hq, USAFSS, Cite: TS-418, 4 Aug 1950. s.d. 36.

~~TOP SECRET EIDER~~

28

~~TOP SECRET EIDER~~

. . . Attempting to exploit Korean traffic this station. Have urgent requirement for Korean translator cleared - officer, airman or civilian. Complete exploitation requires translator and dictionaries. Attempting to obtain translator locally.

On the same day, Headquarters USAFSS informed the RSM that results of Willy (OSI) were good and requested the squadron to locally produce code sheets, net diagrams and code substitutions from the traffic before forwarding the material to Brooks AFB.²⁶ Concurrently, FEAF informed USAFSS that FEAF would supply a Korean linguist to the OSI Detachment, Johnson AFB, whom the RSM could use.²⁷

Finally, on the 14th of August, the RSM informed Headquarters, USAFSS, that project Willy was "at a standstill"²⁸ and reported that the code sheets for the brevity codes had not been received by the squadron. The 1st RSM further reported that exploitation of the Korean traffic was being held up pending authority to grant a clearance to a Korean translator. In the meantime, all the results of the Korean search (1st RSM effort) were being reported in the RSM T/A reports.

The Analysis Translation Effort. Immediately following the outbreak of hostilities, the RSM, lacking suitable material for effective cryptanalysis exploitation, concentrated its T/A effort on Air/Ground nets. The analysts began working this traffic on an

26. TWX, Hq USAFSS to CO, 1st RSM, Cite: ST-945, 3 Aug 1950. s.d. 38.

27. TWX, FEAF A-2 to CO, USAFSS, Cite: MH-202, 5 Aug 1950. s.d. 39.

28. TWX, CO, 1st RSM to Hq, USAFSS, Cite: TS-467, 10 Aug 1950. s.d. 43.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

47

hourly basis during the period these nets were most active. Hence, at the end of each active six-hour period, the RSM had a current intercept picture that was easy to summarize.²⁹ During July, Headquarters, USAFSS, supplied the RSM with a civilian cryptanalyst. Also, Project Willy supplied the RSM with some North Korean code volumes. Nevertheless, the RSM did not have a Korean translator, so the crypt effort was temporarily retarded and the major RSM analysis effort continued to be directed toward T/A about Air/Ground and Ground/Ground nets.³⁰

By the time Project Willy was terminated, the RSM had begun identification and analysis of various types of codes being used by the North Korean forces. By the end of August, the crypt effort of the RSM had cataloged three North Korean Air systems and 12 Military systems. [Yet, the reporting or tactical intelligence phase of this effort was being blocked by lack of a Korean translator. Hence, the RSM, acting on advice from the SRS, FEAF, procured the services of a Catholic Missionary through the Columbian Mission Society. The Father had been a Major (Chaplain) in World War II, had served in Korea for several years, and had become quite fluent in the Korean language.³¹

29. Monthly Status Report, 1st RSM, Jun 1950 - 3 Jul 1950. TSC 5449A.

30. Ibid., Jul 1950 - 3 Aug 1950. TSC 5449B.

31. Ibid., Sept 1950 - 3 Oct 1950. TSC 5449D.

~~TOP SECRET EIDER~~

29

~~TOP SECRET EIDER~~

P.L. 86-36
EO 3.3b(3)

The Father reported to the RSM on 13 September. Prior to the end of September, he and the civilian analyst had processed 404 [25x3] messages which earned the RSM some early respect and recognition. Also, the procedures used to disseminate and exploit these early products hastened the establishment of the USAFSS Liaison Officer in the Far East, because it aided in crystallizing the weaknesses in the current dissemination system.³² The cryptanalysis-translation effort continued to increase until 24 October 1950. At that time, the Father returned to his Service in Korea and the analysis again shifted to Russian and Chinese traffic.

The [25x3] (Cryptanalysis) was actually begun in September. It was directed toward [25x3] nets, but was hampered by lack of a translator also.³³ This same factor retarded exploitation of the [25x3] traffic during November although the crypt effort broke approximately 1,000 messages [25x3] from [25x3] circuits.³⁴ Also, during November, the RSM established its initial voice processing (analysis) effort. This activity concerned Russian voice and was performed by one airman primarily on traffic forwarded from

[25x3]

The RSM did install a voice position at Johnson in November, but the traffic proved to be of limited value. Therefore, the voice

32. Historical Data Report, 1st RSM, July-Sept 1950.

33. Monthly Status Report, 1st RSM, Sept 1950 - 3 Oct 1950. TSC 5449D.

34. Ibid., Oct 1950 - 3 Nov 1950. TSC 5449E.

~~TOP SECRET EIDER~~

DOCID: 3737095

~~TOP SECRET EIDER~~

49

processing capability began translating messages on the air-to-ground CW circuits for the T/A Section in December.³⁵

Although the cryptanalysis and translation effort of the RSM during September-December 1950 provided some valuable, and at times controversial, information, the Squadron actually made very little progress on the North Korean communications problem. The limited volume of Korean and Chinese traffic, processed on a "catch-as-catch-can" basis, lacked the continuity element essential for net reconstruction and current call sign identification. In other words, the traffic analysis approach to the Korean problem had limited possibilities under existing conditions and the cryptanalysis effort was limited by lack of translator personnel.

Weather Support Effort.—In essence, this approach could well be called a T/A approach, for records reveal close and successful cooperation between the RSM, Weather and T/A sections. Furthermore, the influence of the Weather effort on the control and processing problems of that period was great. In reality, the COMINT Weather effort, although assigned to USAFSS by DAF regulation No. 1-11-54, dated 31 December 1948, did not occupy a major place in AFSS functions until 1950.

By early November 1949, the COMINT Weather program had begun to require some consideration, e.g., the need for a future operations plan had become apparent. Hence, representatives from AFSA,

35. Ibid., Dec 1950 - 9 Jan 1950, TSC 510.9F.

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Page..... of 192 Pages

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DOCID: 3737095

50

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Navy, AFOIN, USAFSS, AACS and AWS convened in Washington and adopted the following agreements relative to collection and production of Special Weather Intelligence (SWI):³⁶

1. That AFSA should be responsible for processing COMINT Weather that was of general interest to both Air Force and Navy on a world-wide basis. This type of information was defined as (a) upper air and (b) six hourly surface synoptic observations.

2. That Air Force Security Service and Navy should be responsible for processing COMINT Weather of local interest to theater commanders or other agencies which these activities served. This type of information was defined as: (a) hourly surface observations, and (b) in-flight Weather reports. The technical support was an AFSA responsibility.

3. That there should be three AFSA Weather processing units; one at Headquarters AFSA, one in the Pacific Theater, and one in the European Theater.

4. That the establishment of communications channels from the COMINT Weather processing units to the AWS recipients was the responsibility of AACS.

5. That the establishment of communications from intercept stations to AFSA processing units was the responsibility of AFSA.

By early February 1950, it had become apparent that AFSA could not supply AWS the information on the timely (6-hour) basis as desired. Therefore, AWS requested that the SWI production and dissemination program be expedited. Hence, AFSA informed USAF that it was establishing a Weather Processing Unit in Japan to obviate the delay in traffic transmission back to Washington. The letter also pointed out that the 1st RSM was copying approximately 25 per cent of the available CQ weather broadcasts.³⁷

36. Minutes, Conference on COMINT Weather Problems, 18 Nov 1949. s.d. 44.

37. 2d Ind (Ltr., Hq AWS to D/I, USAF, Subj: Requirements for Special Weather Intelligence, 16 Feb 1950) Hq AFSA to D/I USAF, 5 Apr 1950, Serial 000104. s.d. 45.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

51

At that point, the weather intercept assignments were determined by the AFSA Weather Branch and were primarily based on AWS requirements and the positions available at Army, Navy and Air Force intercept stations. The 1st RSM had two positions copying hourly air/ground, ground/air and ground/ground broadcasts.

During May 1950, it became apparent to AFSS that these assignments did not fully meet the USAFSS responsibilities in the weather information service. Further, USAFSS viewed the existing agreement as unsatisfactory for the following reasons:

1. USAFSS did not have any responsibility for upper air reports. However, upper air soundings had a direct bearing on the type and amount of flying performed. In addition, rawsonde and pilot balloons generally indicated new air activity.
2. Also, the changing of index numbers of collective broadcasts, in many areas, were the only source were the only source of weather information available.
3. Moreover, USAFSS believed that weather information could not be successfully produced by having one unit process three and six hourly reports and another unit process hourly reports.
4. Finally, AFSS viewed the weather effort (RSM-wise) as a valuable adjunct to the regular T/A effort.

Therefore, following the outbreak of the Korean conflict, USAFSS established a small weather processing capability at the 1st RSM.

Nevertheless, it was not until late August that this effort began producing information and techniques of value to operations (RSM and AWS). First, the unit conducted a study of traffic intercepted from air circuits to determine the types and extent of weather traffic being carried on these circuits. This study was concentrated on

~~TOP SECRET EIDER~~

31

~~TOP SECRET EIDER~~

P.L. 86-36
EO 3.3b(3)

such cases as

25x3

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Second,

the unit aided the intercept of 25x3 by determining the broadcast schedules and frequencies used. The overall volume of ground/ground and ground/air weather traffic was increased by changing the intercept assignments and stressing the need for ground weather traffic.³⁹

During September, the weather unit began contributing to the regular T/A effort, particularly in locating calls. This was accomplished by a combination traffic analysis and weather analysis methods, i.e., volume and type count, transmission schedule determination, cribbing with international and other air weather information, plotting elevations from pressure and temperature reports and plotting pressure profiles of the reporting stations. In addition, the unit determined from the changing index numbers in 25x3 traffic that it would be able to produce sufficient weather intelligence (technical) from 25x3 traffic to aid in exploiting air type traffic.⁴⁰ Prior to the end of the month of September, these cribbing techniques were being used quite successfully, particularly in the analysis of aircraft activity which was made daily.⁴¹

38. Monthly Status Report, 1st RSM, Aug 1950 - 3 Sept 1950. TSC 5449C.

39. Ibid., Sept 1950 - 3 Oct 1950, TSC 5449D.

40. Ibid.

41. This technique was proposed by the Chief, Analysis Division, Hq USAFSS, in May 1950. At that time, the individual pointed out this possibility and recommended that the 25x3 Weather and T/A units be integrated to exploit these techniques. See Historical Data Report, Directorate of Operations, May-Jun 1950.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

53

By early October, transmission of Special Weather Intelligence to the 2143D Air Weather Wing had begun. Before the end of October, dissemination of Special Weather Intelligence to the Tokyo Weather Control had begun⁴² and the unit had produced 22 area forecasts for the coastal areas from Korea, north, including the Sea of Okhotsk.⁴³ By the end of November, the Weather Section was supplying, in many cases, the only weather data available for forecasts for Korean operations.⁴⁴ On 13 December 1950, this service was recognized and a requirement placed by 4143d Air Weather Wing which included information from the Chinese forecast area, the Russian forecast area, the Chinese reports, the North Korean reports, and the Russian reports.

Reporting Requirements and Services. The third approach to the problem's solution was really the initiation of a true intelligence reporting service for field processing. With the beginning of the Korean action, the RSM began preparing traffic summaries and intelligence briefs which were passed to Headquarters, USAFSS, * SRS, FEAF, and SSR, GHQ FEC every six hours.⁴⁵ During July the RSM reporting

42. These Weather reports were transmitted via the AFSA Weather Unit at USN 35. Frequently, the unit was unable to transmit the RSM reports because its circuit was overloaded with its own traffic. This often caused RSM reports to be destroyed after they had exceeded the usable time limit. Later a direct circuit (RSM-2143d) was installed to alleviate this situation. See Historical Data Report, 1st RSM, Oct-Dec 1950.

43. Monthly Status Report, 1st RSM, Oct 1950 - 3 Nov 1950, TSC 5449E.

44. Ibid., Dec 1950 - 9 Jan 1951, TSC 5449G.

45. Ibid., Jan 1950 - 3 Jul 1950, TSC 5449A.

* By 30 June the 1st RSM had reported that it noted no indication that Russia would enter the conflict.

32

~~TOP SECRET EIDER~~

51

~~TOP SECRET EIDER~~

effort developed into a Daily Intelligence Summary which went to USAFSS and FEAF. This Summary was the days' recap of air activity. It was expanded to include tactical air, PVO, and other unusual activity. In addition, the RSM began a Monthly Aircraft Activity Report (AATST Series) in July.⁴⁶ However, the reports were technical in nature and generally lacked RSM evaluation and interpretation in light of collateral material.

Therefore, the RSM developed a war room in July to furnish the necessary capability for proper evaluation and interpretation of its material. In general, the completion of this particular support project proved very difficult and required many months, for it was retarded by shortages of collateral material and the prevailing intelligence collation concepts of higher echelon exploitation. Nevertheless, the RSM continued to request collateral material through the remainder of 1950. Moreover, during August the war room was converted into an operations room for the Chief, RSM operations and Chief, Intelligence Evaluation. During this period, the RSM also began maintaining a current situation map of the Korean action and an Air Order of Battle for the Chinese Communist and Eastern Soviet air units.⁴⁷

46. Monthly Status Report, 1st RSM, Jul 1950 - 3 Aug 1950, TSC 5449B.

47. Historical Data Report, 1st RSM, Jul-Sept 1950.

~~TOP SECRET EIDER~~

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55

During September 1950 the RSM supplied 129 North Korean items to SRS, FEAF which represented a source of intelligence from which movements of troops and supplies, contemplated attacks (air and ground) and other pertinent information could be obtained. Further, the Intelligence Reporting Unit began a periodic (10-day) Intelligence Summary on 21 September which included the total aircraft activity of major units by principal areas. It also included RSM remarks on Safety of Flight, Tactical, Civil Air, PVO, Ninth and Tenth Administrative, and Chinese Communist nets. It was disseminated to USAFSS by wire and FEAF and GHQ, FEC by courier.⁴⁸ Yet, the RSM, as late as 16 November 1950, was forced to by-pass theater dissemination procedures to procure needed collateral. At that time, the RSM, although it had requested a place on the distribution lists for several Intelligence documents produced in the theater, had to borrow the GHQ Intelligence Summary from the 35th Fighter Interceptor Wing for a short period each evening of the day the Summary arrived.⁴⁹

In the meantime, the problem of procuring collateral material for field processing and reporting became so acute by November 1950 that it was reviewed at a called inter-service meeting on 16 November. At that time ASAPAC, Navy, and RSM urgently requested the Air

48. Monthly Status Report, 1st RSM, Sept 1950 - 3 Oct 1950, TSC 5449D.

49. Historical Data Report, 1st RSM, Jul-Sept 1950.

~~TOP SECRET EIDER~~ 33

~~TOP SECRET EIDER~~

Force representative to SSO, GHQ, FEC to take action on the problem so that certain collateral material could be disseminated to the COMINT collection and production agencies.* Although the representative indicated his personal desire to alleviate the problem, he stated that he was unable to take positive action immediately. The meeting did cause a smoother and faster exchange of voice traffic** among ASAPAC, Navy and RSM.⁵⁰

In summary, the RSM initiated several reports during this period designed to fulfill theater needs as expressed piece-meal or informally or anticipated by the squadron. Among these was the AATST series, which gained recognition by Headquarters, USAFSS, who soon adopted some of the analytic methods and techniques employed by the RSM in production of the AATST.⁵¹ However, by early December, USAFSS had begun to view the AATST Reports as a duplication of functions "which should be performed," for the RSM by Headquarters, USAFSS.⁵²

50. Historical Data Report, 1st RSM, Oct-Dec 1950.

51. 2d Ind (Ltr Hq USAFSS to CO 1st RSM, Subj: Recommended Change of the Monthly Status Report, 17 July 1950) Hq USAFSS to CO 1st RSM, 12 Oct 1950. s.d. 46.

52. Ltr., Hq USAFSS to CO, 1st RSM, Subj: Monthly Status Report, 11 Dec 1950. s.d. 47.

* Available records reveal that theater policy did not allow the two SSO agencies to physically disseminate certain material without personal approval of the Theater Intelligence Officer. As a result, 1st RSM personnel were forced to visit SRS, FEAF and read on-the-spot COMINT material produced by the 3rd RSM on two occasions.

** This agreement aided RSM in developing its initial voice processing effort.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

57

On 11 December, USAFSS suggested that the AATST Report be discontinued, unless a theater requirement for the report had been registered. Further, during December, AFSS charged the RSM with the responsibility for submitting electrically revised and more complete Daily Intsums, Ten-Day Intelligence Reports and Item Reports. This requirement not only represented the only specific and formal intelligence requirements* during the period, it also signified the entrance of USAFSS into timely processing and reporting functions as indicated in the current USAFSS view toward the AATST Report.⁵³

However, the RSM shortage of collateral was relieved somewhat because the SRS, FFAF increased its supply of FFAF intelligence material to the RSM. Hence, the RSM was capable of processing and evaluating Detachment "C" products when these items began arriving on 9 December 1950. A total of 681 such items were processed and disseminated by the RSM Intelligence Unit prior to 31 December.⁵⁴

Control - Analysis Procedures. From the standpoint of control, the procedures developed or adopted by the RSM following the outbreak of the conflict were also in support of adequate field processing

53. Ltr w/Incl, Hq USAFSS to CO, 1st RSM, Subj: Letter of Transmittal for CIOP No. 2, 15 Dec 1950. s.d. 48.

54. Monthly Status Report, 1st RSM, Dec 1950 - 9 Jan 1951, TSC 5449G.

* The CIOP by which this requirement was placed established various categories and types of activity to be reported as devised by ZI agencies. It also increased the analysis responsibility of the RSM and decreased the reporting period for the Intsum "in order to allow USAFSS to fulfill its immediate responsibility to USAF."

~~TOP SECRET EIDER~~

34

~~TOP SECRET EIDER~~

and reporting. By July 1950 the RSM analysis and control functions had become specialized and had been organizationally divorced. Thus, the squadron began experiencing some incidents wherein the needs of the RSM analysts were not always fulfilled by the action of the Intercept Control Unit. This problem was solved in two ways. First, the analysts were furnished cards which, in essence, was a request for special coverage or specific treatment of cases being covered. These requests were routed to the T/A Officer for concurrence, consolidation and disposition. Further, the T/A officer placed an automatic termination date on each case, thus keeping the special requests current from the standpoint of Intercept. Second, the Operations, Analysis, and Intercept Control Officers were physically situated in the same room. Although each officer supervised his own activity, there was a constant and rapid exchange of information and ideas which permitted adjustments in intercept activity in a matter of minutes. In addition, this procedure resulted in a cross-training program which supplied competent operations officers.⁵⁵

Expansion of RSM Facilities. Aside from the analysis, reporting, and control programs, the RSM increased its capability by rapid expansion and joint agreements during July-September 1950. This latter approach, however, was generally limited to an increase in RDF capability. By July, the RSM had two RDF sites in operation—one in Misawa

⁵⁵. Historical Data Report, 1st RSM, Oct-Dec 1950.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

59

and one located at Johnson AFB. During August an RDF net within the RSM was established. An SCR 399 circuit was installed from Misawa to Squadron operations; a field phone net was installed from operations to the Johnson site, and a BC-399 was placed in operation in the RDF Control Section. Thus, by using the current one-time pad system, the RDF control could operate the net on desired assignments.⁵⁶

Meanwhile, on 26 August, ASAPAC, Navy and RSM agreed to establish a joint RDF network in the Far East. The first link was to be the RSM net which would be operated by RSM operations. At that point ASAPAC was experiencing operational difficulty with its RDF equipment and Navy did not have an RDF station in Japan.⁵⁷ During October, the ASAPAC station was added to the net after the original joint agreement was revised.* A second joint RDF net was agreed upon by ASAPAC and RSM on 25 October 1950. It was to include the following RDF sites: Chitose, ASAPAC; Misawa, RSM; Kyoto, ASAPAC; Hakato, ASAPAC, and Ashiya, RSM. During November, the Johnson-Ashiya link of the RSM net was completed by installing an SCR 399 radio circuit from Ashiya to Squadron operations. This circuit

56. Monthly Status Report, 1st RSM, July 1950, TSC 5449B.

57. Ibid., Aug 1950, 3 Sept 1950. TSC 5449C.

* Navy did not enter the joint RDF net as had originally been agreed. Hence, ASAPAC and RSM adopted another plan of operation.

35

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

later became the principal means by which the RSM could communicate directly with its Korean detachment.

The emergency also increased the circuit requirements and procurement of the RSM. One of the first emergency acts of this nature was the procurement of a direct circuit back to the Zone of Interior. Consequently, on 3 July, a duplex teletype circuit was installed from the RSM to the AACS transmitter in Tokyo, which gave the RSM a direct circuit to the AACS relay station in Hawaii. However, the equipment broke down in a few hours, and the RSM was forced to pass traffic to AACS Tokyo for relay to Hawaii, a practice that continued for several days.⁵⁸ On 17 September the circuit was again patched through Tokyo to Hawaii and thence to San Francisco and Brooks AFB.⁵⁹ On 26 September, this circuit was converted to a full duplex all the way to Brooks.⁶⁰

Two other circuits were added to the RSM communications facilities during this period. Late in July, a simplex teletype circuit was installed between the RSM and USN-35 to provide immediate and direct communications for operational traffic. However, by October, the RSM weather effort had increased to the extent that additional communications facilities with USN-35 were needed. Hence, a half duplex, neutral teletype circuit which used a voice frequency carrier,

58. Monthly Status Report, 1st RSM, June 1950 - 3 Jul 1950. TSC 5449A.

59. Ibid., Sept 1950 - 3 Oct 1950. TSC 5449D.

60. Ibid.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

61

was added. It was an on-line operation for classified traffic.⁶¹ Actually, the installation of this circuit was a typical illustration of emergency problems wherein ingenuity was employed in their solution.*

This circuit required additional teletype equipment. Although the RSM was given eight days to install the circuit, its request for additional equipment was forwarded to Headquarters, AMC for approval. Consequently, the RSM converted its Class "A" circuits into standard circuits and used its test equipment to install the RSM portion of the on-line circuit. It actually proved more reliable than the standard Navy circuit during the first 30 days of operations.⁶²

The second circuit was a communications link between Detachment "B" (Ashiya) and the RSM. It was installed 24 November to connect the Ashiya RDF site with the RSM net and to afford a means of communication with Detachment "C" (Korea). This circuit was a CW radio link. It used a one-time pad (grill) system.⁶³ This circuit was converted to a full duplex on 22 December, and became operational as a teletype circuit on 27 December.⁶⁴ Also, two matched doublet

61. Ibid., Oct 1950 - 3 Nov 1950. TSC 5449E.

62. Historical Data Report, 1st RSM, Oct-Dec 1950.

63. Monthly Status Report, 1st RSM, Nov 1950 - 3 Dec 1950. TSC 5449F.

64. Ibid., Dec 1950, 9 Jan 1951. TSC 5449G.

* For a full account of the many problems encountered by the RSM in procuring and installing communications equipment and the interim solutions applied by the RSM, refer to the RSM Historical Data Reports for Jul-Dec 1950. The reports were prepared by Major William P. Fife, Assistant Operations Officer, during that period.

~~TOP SECRET EIDER~~

36

~~TOP SECRET EIDER~~

antennas were installed at the RSM transmitter site in November, to be used for point-to-point communications between the detachments.

As for the expansion in regular intercept capability, the emergency increased the tempo to the extent that the physical plants for two detachments were almost completed by 31 December. Detachment "A" or 11, was developed from Team "A" at Misawa. Detachment "B" or 12 was developed at Ashiya. Although both sites had been selected and approved by 13 April 1950,⁶⁵ preliminary arrangements for RSM occupation of the Ashiya site were not begun until June.* Construction action on both detachment facilities was initiated in July.⁶⁶ However, both projects were under construction by the end of September with a four-month completion date by virtue of a high priority assigned by USAF.⁶⁷

Meantime, the RSM had begun a rehabilitation project on its antennas. This project was completed by 30 October, except for ceramic spacers in the transmission lines and terminating resistors for sloping "V" antennas. In addition, the new construction program supplied 15 antennas for the RSM. Nine rhombics for Detachment "A" were completed on 13 December. The six rhombics and six Sloping "V"

65. Historical Data Report, 1st RSM, Mar-Apr 1950.

66. Ibid., Jul-Sept 1950.

67. Monthly Status Report, 1st RSM, Jul 1950 - 3 Aug 1950. TSC 5449B.

* Team "A" was deployed to Misawa and took over existing AACS/RDF facilities on 26 Oct 1949.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

63

antennas for Detachment "B" were completed by 30 December.⁶⁸ Although these projects added 20 antennas to the RSM intercept capability and provided housing facilities to accommodate the personnel increase, other factors retarded the immediate full operation of the detachments. For instance, full utilization of the antenna farm at Detachment "A" was dependent on the construction of an Operations building which had not been authorized in the original contract.⁶⁹ Therefore, a temporary antenna (double doublet) was constructed near Team "A" operations building in order to permit some regular intercept activity.

Position-wise, the intercept capability experienced a considerable growth during this period. The RSM had 16 CW positions installed on 1 July 1950. This total was increased to * 25 by August, the increase being made at the RSM.⁷⁰ During September five CW positions were installed at Ashiya.⁷¹ During November one other position was installed at Ashiya. By 30 December, the RSM and three detachments were operating 36 CW and one voice position. Six of the CW positions were installed in Korea and manned by USAFSS personnel and South Koreans.⁷²

68. Historical Data Report, 1st RSM, Oct-Dec 1950.

69. Ibid., Jul-Sept 1950.

70. Monthly Status Report, 1st RSM, Jul 1950 - 3 Aug 1950. TSC 5449B.

71. Ibid., Sept 1950 - 5 Oct 1950. TSC 5449D.

72. Ibid., Dec 1950 - 9 Jan 1951. TSC 5449G.

* This did not include positions installed in Operation "B" (Training) which were tandem positions to Operations "A" (Regular Intercept).

~~TOP SECRET EIDER~~

37

64

~~TOP SECRET EIDER~~

As for the personnel factor, the Squadron assigned strength increased from 10 to 18 officers and from 231 to 478 airmen during this period in accordance with the new TC&E authorizations. Yet, the RSM viewed the manning document as inadequate in many cases, particularly in communications and clerical personnel. Moreover, the RSM found it necessary to conduct an intensive training program for newly assigned personnel in various specialities.

New operators assigned to the RSM were not considered sufficiently trained to be assigned to a regular or productive task. Therefore, they were given a refresher course in CW intercept procedures. After they attained an adequate code speed (22 WPM) they were placed in tandem positions to experienced operators and copied the same circuit. As soon as the tandem operators were able to copy through interference with reasonable accuracy, they were assigned to low priority circuits.⁷³ Further, the RSM conducted an OJT program for communications personnel throughout this period. In this respect, 10 of the 50 intercept operators assigned during July-September 1950 failed to attain the necessary speed. They were converted into message center specialities in order to fulfill the communications commitments. These individuals proved quite capable in their new assignments.⁷⁴

73. Historical Data Report, 1st RSM, Jul-Sept 1950.

74. Ibid., Oct-Dec 1950.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

65

COMINT PRODUCTION IN KOREA

From the collapse of Project Willy to the deployment of Detachment "C", the Air Force (OSI) COMINT effort in Korea continued to be centered around South Korean (Cho) production. The story of this effort was written by Major (then Lieutenant) Cho Yong Il, Commanding Officer, ROKAF Detachment 3. Although the validity is uncertain and some of the statements are vague, the OSI representative in Korea labeled the following account as "fairly accurate" as far as he could ascertain.* In resume, Cho defected from Communist territory in 1948 and later entered the ROK army. Prior to that time, Cho had been a radio operator and cryptanalyst with the North Korean Army at Chinnampo. He had also served in the Japanese Army and as a merchant seaman with the Russian Navy.

South Korean COMINT. Cho's narrative of the development of ROK intercept is as follows:⁷⁵

In December 1949, approximately four months after the Republic of Korea had become recognized by international authorities, a rebellion movement started in the area around Yosu and Suchon in South Korea. When this situation had settled down, the Republic of Korea Army and Navy took steps to intercept communications information that the North Korean agencies had used to start the rebellion.**

75. Narrative by Major Cho Yong Il, CO, ROKAF Detachment 3, Subj: Development of ROK Intercept. s.d. 49.

* Information furnished by Maj William P. Fife (Assistant Operations Officer and Detachment "C" Project Officer for the 1st RSM during Oct-Dec 1950) on 6 May 1953 after reviewing Cho's narrative for the DCS/Operations, Hq USAFSS.

** This effort was centered on political or suspected subversive communications.

HQS USAFSS TSC No 59-09525

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Page.....38..... of 192 Pages

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

The ROK Army established their communications Watch Station at Tuk Som in the outskirts of Seoul; the Navy set up their similar agency with 15 men under control of a Lt Kong Yong Lip.

On 1 October 1949, the ROK Air Force was founded independent of the ROK Army Aviation Troop and the task of collecting communications intelligence was assigned to Section 4 under the Intelligence Department of ROKAF Headquarters. On or about 1 April 1950, this unit began to function.

On 1 June 1950, Major Cho (then 2d Lieutenant) was appointed officer in charge of Section 4. During the month of June, when much work was being performed collecting qualified personnel and equipment, Section 4 was forced to evacuate Seoul due to the unexpected aggression of the North Korean Army against unarmed South Korea on 25 June 1950.

At the time the ROK Army Communications Intelligence Agency had been organized with 30 men, under Major Han Kwang Il. They lost the majority of their equipment at Tuk Som in Seoul during their withdrawal, but were able to set up five more radio positions at Taegu, Korea.

The ROK Naval Intercept unit also lost the majority of their equipment, however, they rebuilt at Chinhae Naval Communications Installation under the leadership of the same Lt Kong. During their stay in Pusan they became attached to an ASA agency under EUSAK. Commander Kim Sue Won, an Adjutant of Pusan Port Constabulary Headquarters, became the leader of the Navy detachment under EUSAK.

Section 4 of the ROKAF Intelligence Department had three receivers and a few qualified personnel. During this time, our / intercepted an enemy CW report that was transmitted by the Kwanghal-Do / Guard Troop. This message dealt with the U.N. bombing. * We / reported this serious matter to Mr. Nichols / who was an advisor to the South Korean Air Force.

The very day this message was delivered, I was ordered by Mr. Nichols to move our equipment and members to his house. Here, I received part of the old lesson "now the emergency is here, come on to my house." This I could not refuse, so on 17 July 1950, we moved to his house.

* This message was an enemy report on the damage caused by one of the first U.S. air strikes.

~~TOP SECRET EIDER~~

DOCID: 3737095

~~TOP SECRET EIDER~~

67

Major Han / could hardly decipher the current enemy code so the messages were sent to us / to be decrypted. These deciphered reports were submitted to General Chang Do Yong, who was Deputy for Intelligence, ROK Army.

On 9 August 1950. in order to get better results, ROK Air and Navy Forces / had cooperated at Mr. Nichols house to get better results. For a short time all worked at the same table; however, 18 August, the Naval detachment returned to EUSAK.

On 3 September 9 more men were added to my section and on 13 October the section advanced to Seoul.

Since the front had rapidly advanced North according to the victorious war situation, Lt Han Dong Jin / promoted to Captain /, two operators and one translator English / moved to Sinanju with a U.S. / Sgt Peterson, to carry on the intercept work on 17 November.

On 31 November 1950 the Sinanju Detachment* evacuated and returned to Pyongyang. During the period beginning in October to 20 November, it was almost a recess time for us because the North Korean forces were overwhelmingly pressed or evacuated owing to the UN's mighty advance. However, on approximately 20 November, as soon as the Chinese Communist Forces entered (sic) in Korea, the remarkable change had appeared in communications networks. These communications nets were widely extended due to the powerful assistance of the CCF and 8 Corps of North Koreans.

Once we had evacuated Pyongyang, we became operational at Seoul and continued our Heaven given mission at Ewha University as Detachment 3 of the First Radio Squadron, Mobile.

Detachment "C" COMINT. As previously stated, very little progress was made on exploitation of the North Korean communications by the 1st

-
- * Sergeant Schumann was a member of the 1st RSM Detachment which was taken to Korea by Captain William P. Fife, Assistant RSM Operations Officer, and Captain Karnan, Detachment Commander, to establish the USAFSS COMINT effort there. Sergeant Schumann was assigned the duty of liaison with Cho's unit and, therefore, was viewed as Commander by the South Koreans.

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~~TOP SECRET EIDER~~ 39

~~TOP SECRET EIDER~~

RSM during the summer and fall of 1950. Hence, the 5th Air Force was primarily dependent on the OSI effort for its operational COMINT. Further, this effort by November 1950 had dwindled to Cho activity. Consequently, the Director of Intelligence, 5th Air Force, asked for a "Y" type of service to augment his supply of tactical information. Therefore, the Commanding General, 5th Air Force, in a wire to the Commanding General, FEAF, on 20 November, requested the RSM to send a detachment to Korea. FEAF immediately arranged a conference among members from 5th Air Force, OSI, and RSM. It was decided that a detachment should be established in Korea as soon as possible. Then, the Commanding General, FEAF, ordered the 1st RSM to deploy a detachment to Korea immediately and replace the OSI unit.

Actually, it was planned (by FEAF and RSM) that the detachment would absorb the OSI CW effort and establish a Russian voice and Chinese CW effort.⁷⁶ The RSM was required to supply the equipment necessary to mount this field expedition, because it was quickly determined that the majority of the Project Willy equipment had been lost or was in extremely bad condition. Therefore, the RSM supplied the following equipment for the detachment: Two TC-9 (modified); one SCR 399; one HO-17; one SCR 291; two PE-95 power units; three PU-58 power units; (the RSM had only two PE-95 units on hand); two PE-75 power units; two squad tents with stoves; three 2-1/2-ton

76. Historical Data Report, 1st RSM, Oct-Dec 1950.

~~TOP SECRET EIDER~~

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69

trucks; two jeeps, and one PE-215 at the request of 5th Air Force.

Concurrently with the staging of this activity, a major offensive was being mounted in Korea and the Cargo Command would not schedule an immediate airlift for the detachment. However, Headquarters 5th Air Force was notified of the delay on 25 November and eight C-119 aircraft were made available at 0600, 27 November. The detachment was divided into two elements. The capability for conducting the North Korean CW activity was to be transported to Sinanju, while Russian voice and Chinese CW capability was scheduled to be established at Pyongyang near Headquarters, 5th Air Force. Hence, only one TC-9 and the RDF equipment was dispatched to Sinanju. The aircraft were dispatched individually since the weather was IFR. All planes were loaded by 1050 hours and the first aircraft arrived at Pyongyang at 1400 hours. It was originally scheduled to proceed to Sinanju. However, the aircraft, carrying two PE-95 power units, the HO-17, and most of the voice personnel, developed engine trouble and returned to Ashiya, the staging point. The personnel immediately began hitch-hiking to Korea, but they did not arrive at the detachment for several days.

While the planes were enroute to Korea, the Chinese Communists launched an attack which immediately jeopardized Sinanju as a site. The detachment commander, aboard the lead plane, learned of the situation while enroute and diverted the Sinanju aircraft to Pyongyang. Consequently, on 28 November, the two TC-9's were placed in operation

~~TOP SECRET EIDER~~

40

DOCID: 3737095

70

~~TOP SECRET EIDER~~

near Headquarters, 5th Air Force, and the Detachment Commander and one NCO flew to Sinanju to assume command of the OSI Intercept Team (Cho). During the night of the 28th, however, the Chinese Communist break-through threatened to engulf Sinanju and the Team was ordered back to Seoul. This evacuation of personnel and equipment* was performed by air on order of the Commanding General, 5th Air Force. Also, the element at Pyongyang was forced to withdraw. Its vehicles joined an Air Force convoy and the personnel and some radio equipment were flown to Seoul. On 30 November, housing facilities were allocated to the Detachment. The following day the South Korean Team (OSI-Cho) joined the Detachment and operations were begun. The project officer then returned to Japan with the SCR-291, which was damaged during the evacuation. A chinese-speaking officer was sent out from the RSM to act as an interpreter because one of the Koreans could speak Chinese fluently.

By 10 December, it appeared that Seoul would be a repeat of Pyongyang. Therefore, the Chinese Language Officer was sent to Taegu to arrange for a site, and on 14 December all personnel and equipment, except an operating nucleus, was ordered to Taegu by convoy. These leap-frog tactics permitted operations at Seoul until the last minute. It also allowed the Seoul unit to fly to Taegu and resume operations

* The original plan had been to evacuate by truck. However, the truck broke down. So the Project Officer procured air transportation through the CG, 5th Air Force.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

71

in a few hours. Actually, it was at this site that pay-off operations were established.⁷⁷

By the end of December 1950, the Detachment was intercepting CW transmissions and distributing approximately eight copies of its products to various agencies. The Korean operators would copy the intercept in pencil and hand the copy to another Korean who would translate it into pig Latin. Then, another Korean would polish up the copy and give it to the RSM personnel who would process and compare the material with whatever source was available before disseminating the product.⁷⁸ Although established dissemination and exploitation procedures of that period tended to minimize the utility value of the products, it was during this period that AFSS proved its ability to produce combat COMINT for the Air Force. For, during the Hamhung beachhead evacuation, the Detachment, composed of two officers and 25 airmen, supplied accurate and advance information to the U.N. Forces on enemy troop strength, disposition, and time and places of attack which proved extremely valuable in the operation.

Dissemination and Exploitation Problems. In respect to these problems, the June-December period of 1950 witnessed the rapid crystallization of concepts which were far in advance of available

77. Historical Data Report, 1st RSM, Oct-Dec 1950.

78. History of Detachment "C" as presented by Major Donald Reed (now Lt Col), 1st RSM Operations Officer at the initial USAFSS Commanders' Conference held at Brooks AFB in Oct 1951. s.d. 50.

Full Chapter 1261

~~TOP SECRET EIDER~~

41

DOCID: 3737095

72

~~TOP SECRET EIDER~~

facilities. Moreover, some of these concepts appeared completely foreign to practices established prior to the emergency.

Generally, the established dissemination practices, COMINT-wise, had been developed under the concept of highest echelon production of usable intelligence. Although the Air Force had made a start toward timely exploitation of COMINT,* the operations were strongly influenced by traditional production practices. As late as September 1950, the date that USAFSS adopted its first proposed SOP for operation of Liaison (SRS) Officer, the primary mission of these offices was viewed as: to conduct special research studies through the applicable RSM for the A-2 of the Command being served and the evaluation, collation, and dissemination of the material received from the RSM. The secondary mission, as proposed, for these SRS offices, was that of collecting and furnishing all items of special intelligence as directed by the Command A-2, and collecting and forwarding to Headquarters USAFSS collateral information obtained locally, which was believed to be of interest to Headquarters, USAFSS. To perform this mission, the SRS would be authorized a cryptographic system common to USAFSS and the applicable RSM for the purpose of requesting missions and monitoring the results.⁷⁹

79. Ltr. (w/Incl) Hq, USAFSS to CG, FEAF, Subj: Proposed SOP For USAFSS Liaison Officers, 1 Sept 1950. This SOP was forwarded to all major air commands in September 1950 for comments and to the RSM for information. s.d. 51.

* USAF established a COMINT SRS in March 1949 to collate COMINT with other data. FEAF and RSM did the same in October 1949.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

73

Finally, the transmission facilities available and the capability of the field collection and processing unit (RSM) tended to justify the status quo in COMINT production and exploitation. Therefore, the problem, at least from the standpoint of the RSM, consisted of: First, the establishment of a reputation for production of accurate and timely information in usable form; second, the procurement of adequate dissemination facilities and, third, the implementation of tactical COMINT concepts. The solution appeared even more difficult because the three phases of the enigma seemingly required simultaneous solution. Moreover, the RSM was obligated to furnish the Air Force a COMINT service in competition with a larger and better-established agency.

Meanwhile, as a consequence of the prevailing concepts and inadequate communications, in July 1950, the RSM was not directly associated--tied-in communications-wise--with Project Willy. Also, the inadequate processing capability of the RSM, plus the current concept, caused the squadron products to be regarded as raw data and to be forwarded to the SRS, FEAF for exploitation (evaluation, collation, and dissemination). Hence, the termination of Project Willy was the first break in the enigma for the RSM. It afforded the Squadron an opportunity to develop a truly useful and timely COMINT production capability.

Fortunately, the initial field processing effort implemented by the 1st RSM in September was outstanding. For, it drove the first

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42

74

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two effective wedges into the enigmatic problem, although the effect was not immediately discernible. The first incident occurred 15 October 1950. At that time the RSM forwarded its translation of a North Korean message, intercepted by the OSI unit, to the SRS, FEAF, which read:

KOREAN
TO: 99X

Korean Translation NR 306
Inter: 15 Oct 1016Z

FROM 86H

Wait for the opportune time for the [25x3] as regards the tentative fixed day for the public announcement between the 20th and the 22nd day [25x3]

On the 20th of October, the SRS sent the RSM the following wire: 80

Colonel Holsclaw [Air Force representative to SSO, GHQ FEAF] requests that raw traffic on your Korean translation 306 be forwarded to ASAPAC for translation. Check with instructions to ASAPAC to relay their translation to SRS soonest. (P.L. 86-36 EO 3.3b(3))

ASAPAC provided the following translation of the message in question on 25 October. 31

You will relay this message to Command Hq Min Gul, Training Regiment Commander, at Yon Kil. Please send all the members of the Kim Dol Won crew at once to Antung. In the event that the IL-10 is delivered to Antung by Soviet Pilot, the Kim Dol Won crew will immediately come to Antung by train, or if / is delivered by our pilot, you will complete all necessary preparations and wait for orders. The expected date of delivery is between 20 and 22 October.

80. TWX, SRS, FEAF to CO, 1st RSM, Cite: MH-313, 20 Oct 1950. s.d. 52.

81. Memo, ASAPAC to SRS, FEAF, No. 978, 23 Oct 1950. s.d. 53.

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75

Subsequently, both the civilian analyst and Catholic translator took exception to the ASAPAC translation. Both answered that the message in question did not contain sufficient groups to supply the above information. Therefore, the RSM reopened the discussion on 2 November by collating its item with other data and forwarding copies to Headquarters, USAFSS and the SSO, GHQ, FEC. At the same time, the RSM pointed out to the SRS, FEAF that the RSM translation No. 306 was a tip-off on the Chinese entrance into the war.⁸² It was later determined that the RSM translation was forwarded by the fastest means from FEAF to USAF and was received by the President.

Again, in early November, the RSM processed a message and forwarded it to the SRS. This translation indicated there were approximately 100 aircraft on Antung airfield. The SRS did not agree with the RSM conclusion, for the officer believed that too many groups were missing to be certain. The Director of Intelligence, FEAF, concurred in this conservative SRS estimate of the RSM report and accepted the ASAPAC translation which indicated only two aircraft. Three days later photo reconnaissance disclosed that there were 101 aircraft on Antung airfield.

The SRS, although viewed as ultra-conservative by the RSM, actually aided the RSM in establishing its reputation by its action. In addition, the conservative attitude of the SRS toward RSM reporting

82. TWX, CO, 1st RSM to SRS, FEAF, Cite: HM-246, 2 Nov 1950. s.d. 54.

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43

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76

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crystallized the fallacy of the current COMINT exploitation concept and forced higher echelon participation in the solution to the problem. This participation on the part of FEAF and Headquarters AFSS, resulted from two alerts called by the RSM during October-November 1950. Although the SRS questioned the validity of the information causing both alerts, without any disastrous results to the Air Forces in the Far East, a recognition of the potential danger of such a practice was established. In one instance the RSM was requested to justify its calling the alert and did so to the satisfaction of the Director of Intelligence, FEAF. On the other occasion, the RSM was complying with a Headquarters AFSS directive and so stated.⁸³

As for the dissemination and exploitation of Detachment "C" products, the majority of this material was passed through army channels and employed accordingly during the early phase of the Detachment's activity in Korea. When the Detachment became operational, its only channel of communications with the RSM was an SCR 399 CW link back to Ashiya and thence to Johnson. This link operated on a daily schedule and used one-time pads. Therefore, it was too cumbersome for anything except routine messages. As a result, all operational matters went from the Detachment to the SSO, EUSAK to SSR, GHQ, FEC to SRS, FEAF to RSM. Incoming operational matters retraced this channel.

83. Memo to Colonel Smith by Operations Officer, 1st RSM, 13 May 1951.
s.d. 55.

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77

Some local dissemination (approximately 85 items each 24 hours) was made by the Detachment to the A-2, 5th Air Force. Also, the A-2, ROKAF received some products from Cho, who was acting Commanding Officer of ROKAF, Detachment 3. The A-2, 5th Air Force, did not have a COMINT exploitation capability (storage facilities and a COMINT officer who could furnish adequate cover for and effectively exploit these products) and, therefore, relied on higher echelon exploitation. Any strike based on COMINT during this period was generally promoted by EUSAK and FEAF. So, for several months the Detachment produced valuable tactical intelligence that became historical data while adequate combat COMINT exploitation facilities were being developed. However, during this period, the detachment effort was concentrated primarily on North Korean Army nets because the North Korean Air Force had been annihilated during the first weeks of the conflict. Thus, the information produced, although it contained valuable target data for 5th Air Force, was of vital importance to the Ground Forces and was so employed.

HEADQUARTERS SUPPORT

Other than implementation of the interim Project Willy, the immediate concern of Headquarters, USAFSS, was to augment the capability of the 1st RSM. The first proposal recorded in this field was made on 7 July by the Chief, Plans and Projects. At that time the individual pointed out that personnel assigned to the 1st RSM were Russian specialists and could not cope with the adjacent sources of

HQS USAFSS TSC No 19-09325

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~~TOP SECRET EIDER~~ Page 44 of 192 Pages

~~TOP SECRET EIDER~~

trouble, i.e., Chinese and Korean. Therefore, the 1st RSM needed to be augmented by attaching two flights of the 8th RSM to the Far East unit. These flights were to be manned by personnel who could process the Sino-Korean traffic.⁸⁴ Although the principle of this proposal was later developed and effectively employed in the solution of the Chinese problem, the absolute scarcity of qualified U.S. personnel and the reluctance to use indigenous personnel prevented effective exploitation of the Sino-Chinese activity until late 1951.* Nevertheless, the USAF Security Service continued to advocate the use of indigenous personnel and to develop a Chinese Language Training program throughout the period. This problem is discussed further in successive chapters.

Logistic Support. In relation to augmenting the RSM capability, the new RSM TO&E became effective 31 July 1950. Nevertheless, it was immediately apparent to USAFSS that the TO&E would have to be revised if the RSM's were to accomplish their mission. Consequently, Headquarters, USAFSS, requested authority to revise the document, but the request was disapproved. Therefore, USAFSS requested authority to insert cells in the TO&E to provide necessary personnel and equipment. Headquarters USAF agreed to this proposal in December 1950.

84. R&R, CPP to CCG, Subj: Proposed Specialized Detachment for 1st RSM, 7 Jul 1950. s.d. 56.

* Information furnished by Mr. Ralph J. McCartney, Technical Advisor to Commander, AFSCC, Hq USAFSS. Mr. McCartney was Civilian Chief of the Headquarters USAFSS Analysis Division in July 1950 and was active in planning and developing the Chinese Language Training program.

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79

Concurrently, Headquarters, USAFSS, established four personnel procurement projects, which were designed to furnish the Command with approximately 1,000 airmen trained as cryptographic technicians and repairmen, Intelligence Specialists, and Traffic Analysts. Yet, the products of these projects would not begin reporting for assignment prior to April 1951. Further, on 20 December 1950, USAF allocated USAFSS an additional \$70,000 for civilian hiring. This hiring was immediately concentrated on college graduates who could be trained as traffic analysts and intelligence specialists. Finally, a pre-army Language School course in Russian was developed and established in Headquarters, USAFSS.

In addition to initiating long range support projects for the field units, Headquarters USAFSS requested a continuous air priority for overseas shipment of equipment, particularly non-standard items of communications equipment. Headquarters, USAF modified and approved the request, which allowed automatic shipment of 2500 pounds of equipment to the Far East each month. Water shipment of equipment was also placed under rigid control designed to expedite the shipping procedures and to keep the field units informed as to the whereabouts of their orders.* Finally, Headquarters, USAFSS furnished FEAF \$13 million

* During the construction of the antenna farm at Ashiya, it was determined by the RSM that the Japanese contractors could consummate their contract without completing of the farm if certain material was not on hand when required. It was also determined that the necessary antenna kits were not on hand. Therefore, the RSM wired USAFSS to ship the material immediately. USAFSS shipped the kits by boat and informed the RSM personnel what date to meet the boat. The ship did not have the kits for the antennas nor the manifest. After three weeks of frantic search by the RSM, the kits showed up at FEAMCOM, 30 miles from the port. The RSM was never able to determine how the kits arrived in port without a manifest and spent three weeks enroute to FEAMCOM.

~~TOP SECRET EIDER~~

45

~~TOP SECRET EIDER~~

dollars for construction of new facilities for the 1st RSM at Ashiya⁸⁵ and Misawa.

Analysis Support. From the standpoint of processing support, the policy followed by Headquarters, USAFSS, during June-December 1950, continued to be somewhat similar to the evolved USAFSS concept as of 25 June 1950, e.g., analysis at Brooks as was necessary to meet various Air Force requirements and to effectively control the RSM activity.* Consequently, the structure of the Headquarters Analysis effort underwent various changes as the war continued and the USAFSS capability increased. By the end of December 1950, the Operations Directorate, Headquarters, USAFSS, had been reorganized into four divisions, i.e., Analysis, Control, Communications, and Technical.

The Analysis Division was subdivided into three Sections, i.e., Traffic Analysis, Machine Processing, and Dissemination, and the Traffic Analysis Section was also subdivided into six branches, i.e., Long Range Air, Air Armies, PVO, Safety of Flight, Development, and Special Studies. This, in itself, indicated the specialized approach, T/A-wise, adopted by Headquarters, USAFSS, as well as reflects the growth of the Directorate of Operations. It also indicates the

85. Historical Data Report, USAFSS, Vol. III, 31 Dec 1950.

* This processing concept was advanced to DIRAFSA by CG USAFSS in March 1950 during AFSA-USAFSS negotiations on the division of control and processing responsibilities delegated by JCS 2010/6. At that point, AFSA advocated restricting processing at Brooks to limited technical development and collation with AFSA. However, no formal agreement was made at that time, and USAFSS continued to develop its processing capability in accordance with its expressed concept.

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~~TOP SECRET EIDER~~

81

influence of AFSA, which supplied personnel to assist in implementing the reorganization of the Traffic Analysis Section.⁸⁶

Briefly, the Long Range Branch concentrated on separating Tactical and Long Range units and identifying the Long Range units in order to establish continuity. The Air Armies Branch performed a similar function on known Air Army traffic and supplied some TEXTA to the Squadrons. By the end of December 1950, this branch had begun analysis of the meager voice traffic in an attempt to develop the Air Army AOB for the Far East.

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The PVO effort of that period was, indeed, small (six persons). It was generally concentrated on the study of operating procedures of

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86. Historical Data Report, DCS/Operations, Oct-Dec 1950. SAC 0165.

* Information furnished by Mr. Ralph J. McCartney.

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46

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82

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Meanwhile, the Safety of Flight Branch was attempting to determine the system used in generating and allocating aircraft and ground station call signs. On 15 November 1950, the unit received the first

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The effort directed toward traffic identification prior to November 1950 was actually a sorting activity. By December, the Branch had become truly an identification unit and a training project for incoming traffic analysts. It was further responsible for furnishing technical information to the RSM's. Also, this unit identified and developed new nets to the extent they could be

87. Historical Data Report, DCS/Operations, Oct-Dec 1950.

* Information furnished by Mr. S. W. Bowers, PVO Analyst, AFSCC, Hq USAFSS. Mr. Bowers joined the embryonic PVO unit at Headquarters USAFSS in October 1950 and was active in the development thereof.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

83

transferred to specific branches for future analysis.*

In summary, the analysis effort at Headquarters, USAFSS, had grown considerably larger by December 1950, had adopted a sophisticated structure, and had been assigned a definite mission. It was supplying some technical reports and squadron backup, but its intelligence reports were more or less of historical interest by the time they were published. A summary of the Traffic Analysis situation at Headquarters, USAFSS, during November-December 1950, written by an officer in charge of one of the branches, discloses the following estimates:⁸⁸

1. The date level of completed reports was approximately six months subsequent to the date of intercept. Message reporting, based on Intsums ran two or three days after date of activity.
2. Raw traffic and technical reports were being processed and compiled on case number and limited area bases.
3. There was a definite and expressed aversion on the part of the majority of the personnel to the processing of traffic transmitted to this Headquarters by electrical means.
4. The "spot" intelligence items derived from teletype, traffic and reported by electrical means was nil. Some reports were made. These were based on "spot" items from the RSM.
5. The program established for the dissemination of operations collateral for support of the analysis and field unit activity was still in an experimental stage.

88. Historical Data Report, Directorate of Operations, Jan-Mar 1951. SAG 1427.

* This unit was actually reorganized in November 1950 to perform technical intelligence reporting functions.

~~TOP SECRET EIDER~~

47

84

~~TOP SECRET EIDER~~

Field Control. The control problem was rapidly becoming one of major importance during this period. In respect to this problem, which actually included a division of production responsibilities as well as control of collection facilities, AFSA and USAFSS had requested a higher echelon decision on the rapidly growing issues prior to July 1950.⁸⁹ At that time, AFSA desired direct operational control of all intercept facilities, both fixed and mobile, while USAFSS believed AFSA should place only bulk Soviet Air and PVO intercept missions on Headquarters, USAFSS. However, no official decision was made relative to a proper division of control (mission assignment) and processing (analysis and technical support) responsibilities.⁹⁰ Therefore, USAFSS generally recognized theater requirements and early warning responsibilities in assessing intercept assignments. Also, USAFSS continued to recognize the AFSA bulk assignments concept of control.⁹¹

89. By the time AFSA was created, the planning crystallized by USAFSS to fulfill its COMINT mission to USAF included collection and production of Tactical Intelligence for Theater Air Commanders and Strategic Intelligence for USAF. The directives creating AFSA and establishing its mission seemingly duplicated the crystallized and delegated Air Force COMINT mission. At least conflicting concepts--strategic responsibilities vs tactical responsibilities of U. S. COMINT production--soon evolved from various interpretations of the departmental directives. After months of negotiations by AFSA and AFSS in an attempt to reconcile the concepts and establish responsibilities, the DIRAFSA requested AFSAC to advance a decision. Also, USAFSS requested USAF to advance a decision. (See History, AFSA-USAFSS Relations, May 1949-Jan 1953, 10 Sept 1953.)

90. History, AFSA-USAFSS Relations, May 1949 - Jan 1953 - 10 Sept 1953.

91. Ibid.

~~TOP SECRET EIDER~~

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85

Nevertheless, by September 1950, the unofficial (USAFSS Bulk Assignment Control Plan) intercept control procedure had become obsolete and the control issue became a prime factor again in the COMINT collection effort. Actually, USAFSS had outgrown the interim control plan position-wise.* Further, USAFSS had begun publishing its intercept plans monthly, which reflected a more rigid Air Force requirements.⁹² Therefore, on 18 September 1950, the Director of Intelligence, USAF and DIRAFSA, adopted an agreement in respect to assigning tasks to USAFSS mobile intercept facilities. This agreement permitted USAFSS to control all of its voice facilities, but allocated control of the radio-printer and automatic Morse assignments to AFSA. Control of the hand Morse facilities was allocated as follows:⁹³

AFSA and USAFSS would jointly control hand Morse assignments with the provision that, in the case of disagreement, each would have final decision on 25 per cent of USAFSS facilities. The remaining 50 per cent would be under joint control. All CW task assignments made by AFSA would be placed via Headquarters, USAFSS, but automatic Morse assignments could be made directly to the USAFSS field units. Further, AFSA could request any and all raw traffic being intercepted by USAFSS positions and such traffic would be forwarded to AFSA as desired.

92. Ltr (w/Incl) Hq USAFSS to CO, 1st RSM, Subj: Interception Plan, 20 Sept 1950. s.d. 57.

93. Unilateral Agreement, Title: "AFSA-Air Force Agreement on Task Assignments to AFSS Mobile Intercept Facilities", 22 Sept 1950. s.d. 58.

* The interim proposal to AFSA by USAFSS agreed that, when USAFSS expanded beyond 50 fully manned CW positions, AFSA should be allowed control and direction of 10 per cent of the USAFSS intercept (USAFSS) CW facilities.

~~TOP SECRET EIDER~~

48

~~TOP SECRET EIDER~~

In practice, this agreement soon resulted in a 25:50:25 control plan and a conflict in teletype priorities. As a result of the agreement, the October mission assignment reflected AFSA requirement as well as a more inflexible joint requirement. Hence, the RSM's, particularly the 1st RSM, regarded the October mission as too rigid and stated that theater requirements had been neglected. Some of the complaints were viewed as valid by Headquarters USAFSS, while others were viewed as misinterpretations of field directives. Consequently, more flexibility was reflected in the November assignment and preparations were begun for an AFSA-USAFSS conference, designed to establish agreements on basic control policies.⁹⁴

In regard to the reporting requirements of this period, the RSM's were responsible for supplying Headquarters many reports by electrical means and courier. These requirements included a Daily Coverage Report for control purposes and various categories of raw traffic for analytical purposes.⁹⁵ Also, as a result of the Task Agreement with AFSA, the RSM's were responsible for supplying AFSA any and all raw material that agency requested. Consequently, Headquarters, USAFSS, adopted a 1st RSM proposal in October 1950 which allowed the RSM to ship by courier all traffic in excess of circuit capabilities. The

94. Historical Data Report, DCS/Operations, Oct-Dec 1950. SAG 0165.

95. Ltr., ODO to Chief, OAD, Subj: Mission Assignment, OAD, 20 Aug 1950. s.d. 59.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

87

cut-off date for the traffic to be forwarded by courier was 24 hours after intercept. In addition, USAFSS delegated some analysis responsibility to the 1st RSM. This field analysis concerned navigational traffic.

Finally, AFSA and USAFSS adopted a shorter Daily Coverage Report format to alleviate the field reporting and circuit load. This also released several typists and clerks from desk duties in the Squadron.⁹⁶ In summary, the Headquarters Control problem of that period was stated as follows by the Chief, Control Division:⁹⁷

As in the past, control has been a headache. The viewpoints of AFSA, AFSS, and the RSM's had to be reconciled. The most widely divergent views were those held by AFSA and the RSM's. We were in the middle, attempting to meet AFSA's seemingly exacting requirements without overburdening RSM personnel and facilities.

96. Monthly Status Report, 1st RSM, Oct 1950 - 3 Nov 1950.
TSC 5449E.

97. Historical Data Report, Control Division, DCS/Operations,
USAFSS, Oct-Dec 1950.

~~TOP SECRET EIDER~~

49

DOCID: 3737095

~~TOP SECRET EIDER~~

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~~TOP SECRET EIDER~~

89

CHAPTER III

December 1950 To The Deployment Of
The 6920th Security Group

The first few months of 1951, a period of growth and increasing participation in the Korean conflict on the part of USAFSS, can best be characterized as an era of crystallization, modification and initial implementation of a combat COMINT service. The former characteristic resulted primarily from experience gained immediately prior to January 1951 while the latter characteristics resulted from experience, requirements and normal growth of USAFSS. In relation to the crystallization of concepts, this period witnessed the development of control and production concepts on the part of the field units, the development of an USAFSS Tactical COMINT service and the development of a USAFSS Liaison Officer System. In respect to modification of concepts, the period witnessed changes resulting in greater emphasis on theater requirements by USAFSS, the recognition of the need for an effective "Y" type service for operational air units and a closer relationship between COMINT and Weather production functions. As for implementation, the period witnessed the establishment of an effective voice intercept service, the establishment of a "Y" service, the establishment of facilities for theater exploitation of COMINT and last but not least, the establishment of an AFSS reputation for producing and supplying valuable and accurate information.

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50

~~TOP SECRET EIDER~~

DEVELOPMENT AND MODIFICATION OF CONTROL CONCEPTS

From the standpoint of the RSM, as well as Headquarters, USAFSS, the outstanding problem during the first seven months of 1951 was to develop an adequate tactical service under a seemingly strategic concept of operations. In that respect, the birth and growth of the Squadron or Group control concept exerted a considerable amount of influence. Although the concept and resulting practices were not fully implemented during 1951, by the third quarter of that year the lines had been clearly drawn in the strategic versus tactical concept of COMINT operations. As indicated in the introduction to this chapter, this resulted in part from normal growth of the RSM capability and successful operations thereof. It also resulted in part from the theater requirements, particularly the weather and Chinese Communist COMINT requirements.

General Control Concepts. The USAFSS entered 1951 operating under a joint control or task assignment agreement with AFSA, which allocated control of USAFSS intercept facilities.* However, no agreement had been made on the division of processing responsibilities although this problem had been a major point in all the AFSA-USAFSS negotiations throughout 1950.¹ Therefore, as a result of the task assignment agreement and lack of clearly defined processing responsibilities, AFSA and USAFSS adopted teletype forwarding priorities for various categories of data required from USAFSS field units

1. USAFSS History, AFSA-AFSS Relations, May 1949 - Jan 1953, 10 Sept 1953.

* See Chapter II of this Study.

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~~TOP SECRET EIDER~~

91

which reflected Zone of Interior processing of a timely nature. Since these priorities were published in conjunction with the AFSA-USAFSS Intercept Plan, they caused the Plan to govern submission of traffic and reports as well as to establish the mission assignments. This combination of factors caused the Intercept Plan to reflect a higher level and more general interpretation of intelligence requirements and hence production methods. In addition, the agreement required Daily Summary Reports from the RSM's which were used as a timely and rigid control tool. Consequently, the RSM soon began viewing the Intercept Plan as unsatisfactory to say the least.

1st RSM Field Control Viewpoint. By April 1951, the 1st RSM had originated a request to Headquarters, USAFSS, for more freedom in fulfilling its theater requirements. Concerning this growing concept, the 1st RSM Commander, in a letter to the Commanding General, USAFSS, wrote on 2 April 1951:²

It is believed that the expansion of USAFSS field units and the increasingly stringent control exerted by Headquarters USAFSS over mission assignments make it desirable to have a clarification of the policy governing detailed mission assignments by Squadrons Commanders.

In the past, in compliance with verbal instructions from Headquarters, AFSS, this Squadron has used the Intercept Plan as a guide with authority to reassign cases for maximum efficiency as local conditions dictated. This has been done and Headquarters, AFSS, has been informed of these changes as they occurred.

Although each month this Squadron finds fewer instances in which changes are desirable for efficiency of Operations, there still are many in which changes are necessary because of local needs. It is believed that this problem is the basis for

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2. Ltr., Hq, 1st RSM to CG, USAFSS, Subj: Intercept Mission Assignment at Squadron Level, 2 Apr 1951. s.d. 89. HQS 89AFSS TSC NO 03-05325

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Page 51 of 192 Pages

~~TOP SECRET EIDER~~

most of the difficulties presently arising over the mission assignments. . . . In recognition of this problem, Headquarters, USAFSS, has assigned one position for local exploitation.

Unfortunately, however, there is no possible way for this Squadron to fulfill its theater mission with such limited facilities. . . your attention is invited to the fact that initial development of new air cases within the theater usually falls upon this Squadron since it is not the policy of AFSS to make provisions for a suspected case in the regular intercept assignment. When first noted, virtually in all instances, it is necessary for this Squadron to carry such development cases for a considerable period before enough information is obtained to justify them as regularly assigned cases. . . . Further, this Squadron is constantly called upon to handle special projects which are over and above the assigned mission. In many instances, this additional effort has been of extreme importance to the theater tactical mission and would have been impossible to accomplish without considerable freedom.

. . . . Since the 1st RSM has been criticized on several occasions for the liberties taken in readjustment of the mission and for copying unauthorized cases, it is requested that Headquarters, USAFSS, establish a firm policy, whereby the Squadron Commander has authority to readjust the Intercept Plan in any way as long as the AFSA and AFSS cases are covered. If AFSA does not concur with this policy, it is requested that this Squadron be given no less than 25 per cent of its intercept facilities for theater exploitation.

Headquarters, USAFSS Field Control Policy. On 21 June 1951, Headquarters, USAFSS, answered the RSM request as follows:³

. . . The problem which you present in your letter is genuine and from the standpoint of the Commander ⁴ ⁷ in the field it is admittedly more pressing, since he must serve and live with the tactical units in the field. On the other hand, this Command is bound by certain overriding policies, such as (1) provision of COMINT to Air Defense Command and Strategic Air Command as representative of a World-wide picture, and (2) the provisions of certain guaranteed intercepts to AFSA per agreement between Director of Intelligence, USAF and Director, AFSA - such agreement being binding upon this Command.

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3. Ltr., Hq, USAFSS to CO, 1st RSM, Subj: Intercept Mission Assignment at Squadron Level, 21 June 1951. s.d. 61.

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93

It is the policy of this Command that the squadron adhere to the schedules as set forth in the intercept mission plans as closely as possible. If local comint requirements suddenly arise which have timely effect on the tactical situation, then the squadron has every right to drop lower priority cases for short periods of time as may be required.* . . . The important element of this procedure is that the squadron informs this Command immediately of its actions, together with a complete synopsis of the situation. . . . /

At that time, Headquarters, USAFSS, pointed out to the 1st RSM that the Far East Theater should place its requirements, whenever possible, with USAFSS in order to assist the squadron in obtaining more theater exploitation. This was specifically in relation to Russian versus Chinese coverage by the RSM. Consequently, early in July, the RSM forwarded a list of all cases copied as a result of local intelligence requirements. Therefore, on 9 July 1951, Headquarters, USAFSS allocated four positions to the Squadron for theater assignments. These were supplied from the USAFSS controlled RSM positions. Moreover, Headquarters, USAFSS, instructed the 1st RSM to submit a recapitulation of all cases copied, by the 25th of each month, together with the type of coverage given those cases, by the squadron positions. These cases would then be considered by USAFSS for possible inclusion in the regular Monthly Intercept Plan.⁴

4. Ltr., Hq, USAFSS to CO, 1st RSM, Subj: Theater Requirements, 25 July 1951. s.d. 62.

* From the RSM standpoint, the catch in the above policy was that lowest priority cases on the Intercept Plan were highest priority cases in the eyes of the Tactical Units.

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52

~~TOP SECRET EIDER~~

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94

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Existing Control Agreement Revised. Without going into an academic review of the first AFSA-USAFSS control agreement, it can be safely stated that the agreement proved unsatisfactory to the agencies concerned. However, in fairness to the intent of the agreement, it can be stated that the document served as an interim measure in the absence of a high echelon interpretation of JCS 2010/6. It thus afforded a basis for operations during a critical period of development. It also highlighted some of the weaknesses in the AFSA-USAFSS relationship which were detrimental to the national as well as Air Force interest.⁵ Hence, in early August 1951, action was begun to have the 25:50:25 agreement changed.

This action was initiated by USAFSS, who drafted a letter to USAF which proposed that the Stone-Cabell agreement be reconsidered "because its percentage breakdown had not worked to the best interest of AFSA or USAFSS."⁶ On the same day (13 August) USAFSS proposed to AFSA that an Ad Hoc committee be appointed to determine the entire division of labor between AFSA and USAFSS. This letter emphasized the fact that both

5. Actually, the first phased plan designed to meet the overall intercept requirements of the U.S. COMINT effort was compiled at the request of DIRAFSA in early August 1951. The plan was designed to: establish total intercept requirements for reasonable overall coverage; determine intercept plan feasible of accomplishment; determine required locations of positions and allocate responsibility for provision of the said positions, and prepare phased program on basis of priority of requirements and estimated ability of Army, Navy and Air Force to provide personnel and facilities. (TWX, DIRAFSA to USAFSS, et al., Cite ARL 37248, 8 Aug 1951). s.d. 64.

6. Ltr., Hq, USAFSS to D/I, USAF, Subj: Proposed Reconsideration of the Stone-Cabell Agreement, 13 Aug 1951. s.d. 63.

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95

agencies were established to perform definite functions and should work together in accomplishment thereof.⁷ At the same time, USAFSS proposed to USAF that control of USAFSS voice and CW intercept facilities be divided equally between AFSA and USAFSS and that common targets be likewise divided.⁸ Also, USAFSS agreed to supply AFSA traffic from USAFSS positions commensurate with transmission facilities. Too, USAFSS proposed to USAF a method of indirect control for AFSA on its portion of USAFSS intercept facilities, i.e., release task assignments via Headquarters, USAFSS.

This new field control concept was presented to AFSA in early September. It received concurrence, except for the indirect control procedure. At that time, USAFSS also expanded its original field control proposal to include the processing issues.⁸ In essence, the USAFSS proposal was a delineation of responsibilities in which the time element was used as a line of demarcation. Concurrently, AFSA requested formal concurrence with a plan relative to procedures for handling Air COMINT. Actually, the plan, advanced by AFSA in a wire 31 August, proposed three reporting echelons in which the time element was the determining factor, viz: RSM report within 24 hours after intercept to local Tactical Commanders as required on results of RSM analysis and to Group and USAFSS by teletype digests and on certain exploitable messages; Group report likewise within 48 hours; AFSA provide these

7. Ltr., Hq, USAFSS to DIRAFSA, Subj: Proposal for Ad Hoc Committee for Determination of Division of Labor Between USAFSS and AFSA, 13 Aug 1951. s.d. 65.

8. R&R, ODC to CCG, Subj: Division of Labor Between AFSA and the USAFSS, 21 Sept 1951. s.d. 66.

~~TOP SECRET EIDER~~

53

~~TOP SECRET EIDER~~

reports, with or without comment, to Department agencies and complete reports to all recipients on all areas within 72 hours and AFSA provide long-term or research studies to Department and Theater Headquarters agencies and provide technical and intelligence support for Group and RSM.⁹ However, the implementation of this proposal, according to AFSA, was dependent upon two conditions, i.e., technically competent personnel and adequate communications facilities.¹⁰

Subsequently, the entire division of responsibility problem (control, processing, reporting, and technical support) was considered at a regular Intercept Control conference and agreement reached on all issues except the authority for AFSA to issue intercept directives to its portion of USAFSS facilities. This point was resolved on 25 October—AFSA was authorized to release these intercept directives via an AFSS Control Liaison Office to be established at AFSA and a new AFSA-USAFSS Task Agreement was drafted. This agreement divided control of USAFSS voice* and hand Morse intercept facilities equally between the two agencies,** provided for a degree of latitude in theater emergencies by allowing Groups or RSM's to drop lowest priority cases temporarily (these cases were designated as expendable

9. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 41346, 31 Aug 51. s.d. 67.

10. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 42796, 12 Sept 1951. s.d. 68.

* Assignments for all voice positions were to be made in a general and not specific manner in order to provide some flexibility for the control agents in the field.

** Control of the positions manned by indigenous personnel was retained by USAFSS.

~~TOP SECRET EIDER~~

DOCID: 3737095

~~TOP SECRET EIDER~~

97

in the IP) and stipulated that teletype forwarding requirements (AFSA and USAFSS could each use 50 per cent of the USAFSS capability) would be considered on the basis of traffic volume rather than by case number as had been the practice.

As for the USAFSS intercept facilities in Korea, it was agreed that, for bookkeeping purposes, these facilities would be equally divided between AFSA and USAFSS, but neither agency would place assignments on these positions.¹¹ The decisions were adopted as the "Lynn-Canine Agreement" and the field units were instructed accordingly in early November 1951.¹²

In respect to relaxing or modifying control agreements, the 1st RSM continued to exert a considerable amount of influence on the AFSA- USAFSS negotiations by advocating more freedom to respond to the tactical situation. Early in September 1951, the RSM requested permission to alter the Intercept Plan in order to provide adequate cover on a Chinese air movement. Actually, the RSM requested full cover assignment for 25x3 However, USAFSS non-concurred because "full cover assignment on these cases would be at the expense of cover for other cases" (Russian). USAFSS did agree to consider the request when positions at USA 38B (Ashiya) became available.¹³ On 29 September the 1st RSM wired USAFSS as follows:¹⁴

P.L. 86-36
EO 3.3b(3)

11. Minutes of AFSA-USAFSS Intercept Control Meeting, 21 through 25 Oct 1951, 25 Oct 1951. s.d. 69.
12. TWX, CG, USAFSS to CO, 1st RSM, Cite: OCD-1 SZ 717, 14 Nov 1951. s.d. 70
13. TWX, CG, USAFSS to CO, 1st RSM, Cite: OCD-1-SZ522, 14 Sept 51. s.d. 71.
14. TWX, 1st RSM to CG, USAFSS, Cite:TS 016, 29 Sept 51. s.d. 72.

~~TOP SECRET EIDER~~

54

DOCID: 3737095

98

~~TOP SECRET EIDER~~

Again requesting reconsideration of Chinese mission assignment. Since unable to alter your case breakdown, we are forced to duplicate 4 Chinese cases on Sqdn posns in order to meet theater reqmts.

Three similar incidents occurred during October. Consequently, late in October, the 1st RSM dispatched the following message to Headquarters, USAFSS.¹⁵

... your mission assignment makes it impossible to fulfill urgent theater reqmts. Theater Commanders have frequently indicated they will not permit us to decrease our effort on either Chinese Air or Chinese WX activity. In fact, additional requirements have been placed on us within past 24 hours. Your instructions give us no sqdn posns at Ashiya. Nor do present posns fulfill this reqmt. The only places we can adequately copy needed Chinese cases are either Ashiya or Niigata. Niigata now has no comm facilities and limited only to testing. We must give full coverage to the following cases: [redacted] 25x3

P.L. 86-36
EO 3.3b(3)

[redacted] 25x3 We now committed to providing Op info on all acft acty in critical area fr which acft could attack Korea or Japan. Para. For your info, personal visit by Col Sawyer, Col Shepard and Maj Fife to 5th Air Force reveals we have approx 36 F-86 acft in Korea plus few F-80 and conventional acft to oppose over 500 MIG-15 acft. . . concern our part and CG, 5th Air Force and pressure now being placed on us cannot be understood since great dependence now placed on RADRONMO for tip-off. Request, because of extremely dangerous situation existing in Chinese air picture, re-evaluation of overall intel reqmts in order to provide us 9 posns, 7 for Chinese coverage in order to meet present situation. These reqmts include 3 posns now assigned on PVO coverage; full authority to control all Chinese coverage both as to case and location.

Therefore, on the same day, Headquarters, USAFSS forwarded a mission assignment for USA 54 (15th RSM which had begun operations at Ashiya) which "was tailored to 1st RADRONMO needs at the USAFSS-AFSA Intercept Conference 22-25 October." At the same time USAFSS wired the RSM

15. TWX, 1st RSM to CG, USAFSS, Cite: TS 383, 31 Oct 51. s.d. 73.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

99

as follows:¹⁶

This Hq is aware of commitments placed on First RADRONMO and desire to restate present policy for this particular situation. If a situation occurs of an emergency nature, the Sqdn Commander has the authority to adjust the assignment to cope with the intelligence requirement. Desire USAFSS and AFSA be notified by priority wire any major variations from the intercept assignment and priority wire to USAFSS any further recommendations.

In essence, this message removed the restrictive qualifications placed on the Squadron Commander in June 1951 by allowing the Commander to drop any case at any position to cope with an emergency; whereas, the previous policy had forced the Commander to drop the lowest priority cases in the IP to cope with an emergency. Yet, these low-priority cases were usually the very ones the RSM was seeking coverage on. Also, USAFSS placed some of the urgent theater cases in the official IP and granted USA 54 one squadron position for theater requirements.

DEVELOPMENT AND MODIFICATION OF PRODUCTION CONCEPTS

Although the issue relative to a logical division of production responsibilities were not settled during 1951, the course of events during the first seven months of that year did crystallize various attitudes and exert influence on the resolution of the problem. This is especially true of the development of the Group concept, and the approaches adopted for solution of the Chinese Air and Weather problems.

16. TWX, CG, USAFSS to CO, 1st RSM, OCD-1-S2 409, 31 Oct 1951.
s.d. 74.

~~TOP SECRET EIDER~~

55

~~TOP SECRET EIDER~~

Group Concept Influence. Though this idea, central theater processing, reporting and control, dates back to November 1950, it did not begin to influence Air Force thinking until January 1951. By early January 1951, USAFSS had submitted its circuit requirements for Plan 12 to Air Force. This Communications Plan envisioned nine direct circuits from various overseas areas to USAFSS. However, on 2 March 1951, USAF informed USAFSS that all available overseas Zone of Interior circuits, both civilian and military, were being used to the fullest extent possible. Simultaneously, USAF suggested that USAFSS decentralize its operational methods to compensate for the inadequate communications and to reduce its communications requirements.¹⁷

Therefore, the Commanding General, USAFSS directed the Operations Directorate, which was also responsible for Command Communications at that time, to furnish plans for two Groups. The units were to be manned by spaces deleted from the Directorate of Operations and the squadrons because the Groups would assume certain responsibilities being performed by these agencies.¹⁸ On 18 May, the Commanding General, USAFSS, approved the Group concept and directed the Operations Directorate to perfect plans for phasing various functions into the Groups, "so that the Groups would eventually absorb the timely,

17. Ltr., AFOAC-1 to CG, USAFSS, Subj: (Restricted) USAF Security Service Communications Requirements, 20 Mar 1951. s.d. 75.

18. Memo for the Record, Subj: Re-Evaluation of Certain Personnel Requirements in Light of Establishment Overseas Groups, 9 May 1951. s.d. 76.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

101

technical processing functions performed at Headquarters, USAFSS.¹⁹

Concurrently, USAFSS presented its plan or Group concept of Operations to the Directors of Intelligence and Communications, USAF.

The concept received Air Force approval in early June 1951, and was presented to the Director, AFSA, in accordance with provisions of JCS 2010, on 18 June 1951. At that time, USAFSS pointed out the following concept to AFSA:²⁰

In view of the fact that rapid analysis of intercept traffic is the only means to insure the timely provision of communications intelligence to operational commanders, it becomes obvious that if adequate intercept cannot be transmitted immediately and without question to a Zone of Interior processing center, the solution is to move the analysis unit as close to the point of intercept as possible.

The Groups were to be responsible for analysis in depth and for the provision of immediate technical backup for the squadrons. Also, the Groups, as approved, would prepare digested material in the form of flash reports, daily summaries, etc. which would be delivered to Theater Air Commanders immediately and simultaneously transmitted back to USAFSS for Zone of Interior dissemination. Further, the letter indicated that almost total decentralization of processing at Headquarters, USAFSS, was the goal.

19. R&R, ODO to OAD, Subj: Establishment of Groups, 18 May 1951. s.d. 77.

20. Ltr., Hq USAFSS to DIRAFSA, Subj: Establishment of Group Headquarters in Europe and the Far East, 18 Jun 1951. s.d. 78.

~~TOP SECRET EIDER~~

56

~~TOP SECRET EIDER~~

Influence of Weather Problems. Meanwhile, by January 1951, the USAFSS Weather effort in the Far East, through successful service to Weather consumers, had generally exceeded the agreements in the original division of responsibility plan and had illustrated the need for another agreement based on experience gained and growth of the weather problem. Therefore, on 24 January 1951, Headquarters, USAFSS requested another conference among concerned agencies in order to resolve all phases of the COMINT Weather collection and production problems. AFSA agreed to this proposal and requested USAFSS to determine, prior to the conference, the requirements for weather information to support tactical air operations. At that time, the general weather requirements, as expressed by Headquarters, USAF, were for information to support ADC and SAC air operations.²¹

Hence, a conference was called early in March to review the Special Weather Intelligence requirements placed on AFSA and USAFSS and to determine the responsibilities and plans of AFSA and USAFSS to meet those requirements. During the conference (7-8 March 1951) it was determined that Air Weather Service requirements consisted primarily of the following categories:²²

1. Selected Northern Hemispheric weather for preparation of hemispheric weather maps and auxiliary charts.

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21. 1st Ind (Ltr Hq, USAFSS to DIRAFSA, Subj: USAFSS Weather Program, 24 Jan 51) DIRAFSA to CG, USAFSS, no date. s.d. 79.
 22. R&R, ODO to CCG, Subj: Report of Staff Visit to AFSA Accomplished by Colonel Orville Laird, 7-8 Mar 1951, 14 Mar 1951. s.d. 80.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

103

2. Local requirements of individual theaters, for dense coverage of their sphere of interest, over and above those provided for in paragraph 1 above.

Also, AFSA proposed that it be given the responsibility for satisfying requirements in paragraph 1 and that USAFSS be given the responsibility for satisfying those requirements in paragraph 2 above. This division of responsibility was based on requirements registered by SAC and on requirements (2143d Air Weather Wing and 30th Weather Squadron) fulfilled by the 1st RSM during the first seven months of the Korean conflict.

Following the above conference, AWS also took cognizance of the Tactical operational requirements for Weather information. On 9 April AWS wrote the Director of Intelligence, USAF, as follows:²³

EO 3.3b(3)
P.L. 86-36

25x3

The effect of the above change on operational capabilities and the manner in which the handicap was overcome prompted AWS to further enlarge and define its SWI requirements. On 16 May 1951, AWS wrote

23. Ltr., Hq, AWS to D/I, USAF, Subj: Requirements for Special Weather Intelligence, 9 Apr 1951. s.d. 81.

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25x3

~~TOP SECRET EIDER~~

57

104

~~TOP SECRET EIDER~~

the Director of Intelligence, USAF:²⁴

. . . It is considered essential that a capability be developed for providing the weather information which will be required for the Air Weather Service to provide Weather support for planned war time tactical air and ground operations in various theater of operations. This information should be available from enemy held territory for approximately 1,000 miles behind the combat zone and should be the following types; hourly or two-hourly weather reports, in-flight and post-flight pilot weather reports, weather forecasts and available river stage and flood reports, ice reports of river and harbors, soil traffic - ability reports and snow cover reports.

At the same time AWS made the following comment on the exploitation of weather.

. . . By its nature, some of this information is extremely perishable and must be provided to designated Weather Service units with an absolute minimum of delay. It is, therefore, considered essential that close coordination be maintained between the appropriate Air Weather Service Units and the units responsible for intercept and decryption of the required information. It is also realized that it is necessary for Air Weather Service units to furnish normal Weather reports and technical information for use in cryptanalysis and evaluation of the intercepted material. Air Weather Service Units in the Pacific area have placed properly cleared personnel with the Staffs of Operational Air Force units and have been instructed to maintain the necessary coordination with USAF Security Service units in that theater.

These requirements were referred to USAFSS by USAF. Later, AFSA and USAFSS adopted another agreement concerning basic responsibilities and principles of operations for COMINT Weather. This division of responsibility authorized USAFSS to produce surface synoptic weather

24. Ltr., Hq, AWS to D/I, USAF, Subj: Specific Requirements for Special Weather Intelligence, 16 May 1951. s.d. 82.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

105

reports within a radius of approximately 1,000 miles from the Air Command Headquarters that was being served. This was designed to provide greater numbers of synoptic reports than were provided by AFSA. The agreement also allowed USAFSS to provide non-synoptic surface and in-flight weather reports, and such additional SWI as required by an individual command for operational use when not provided by AFSA. Further, USAFSS was authorized to process, at RSM level, the air/ground, ground/ground and ground/air weather traffic passed on air nets.²⁵

Consequently, on 26 June, USAFSS informed the Director of Intelligence, USAF, about the agreement and stated that:²⁶

. . . Planning of this organization proposes the establishment of a weather section of sufficient size in those RSMs situated near Weather Centrals of the Air Weather Service, to meet the requirements / 7 of the Air Weather Service. . . the locations of these RSMs within these theaters are in close proximity to established or proposed Weather Centrals. The RSMs are authorized direct liaison with Weather Service Wing or Group Commanders for establishing theater weather requirements.

EO 3.3b(3)
P.L. 86-36

By that date, Detachment 13, in Korea, was supplying the 30th Weather Squadron selected hourly weather observations from China, North Korea and Russia. The 1st RSM Weather Section was

25x3

25x3

25. AFSA-USAFSS Agreement on Basic Responsibilities and Principles of Operations for COMINT Weather, 30 Jun 1951. s.d. 83.
26. 2d Ind (Ltr, Hq AWS to D/I, USAF, Subj: Specific Requirements for Special Weather Intelligence, 16 May 1951) Hq, USAFSS to Chief, SRB, D/I, USAF, 22 Jun 51. s.d. 84.

~~TOP SECRET EIDER~~

58

~~TOP SECRET EIDER~~

25x3

hourly weather reports from two major airfields in North Korea, SWI from Russian language weather forecasts and SWI from 25x3 hourly weather observations, pilot balloons and pilot reports.²⁷

Actually, the Weather Section at Detachment 13 was established in March 1951 to increase the timeliness of SWI to the 30th Weather Squadron. As a result, Detachment service to the 30th during April increased over 200 per cent.²⁸ By August 1951, the 30th Weather Squadron had increased its SWI requirements and consequently the SWI program at Detachment 13. At that time, the 30th began preparing four major maps instead of two. Since Detachment 13 did not have an adequate cryptosystem established back to the 1st RSM, it had to increase its intercept and analysis of special Weather broadcasts.²⁹

86-36
EO 3.3b(3)

Also, by August 1951, the 1st RSM had become the only reliable and timely source of Weather information for tactical operations. Further, by late August, the RSM was officially responsible for supplying tactical Weather information for the Korean operations. For, following the failure to resolve the Weather problem in early August, USAFSS requested USAF to give USAFSS the responsibility for insuring fulfillment of the SWI requirements of AWS and authorize direct

27. Historical Data Report, 1st RSM, Weather Section, Aug 50 - Jul 51, 13 Jul 1951.

28. Monthly Status Report, 1st RSM, 3 May 1951.

29. Monthly Status Report, 1st RSM, 5 Sept 1951.

~~TOP SECRET EIDER~~

DOCID: 3737095

~~TOP SECRET EIDER~~

107

liaison between USAFSS and AWS.³⁰ This responsibility was delegated to USAFSS by AFOIN on 21 August 1951.³¹ Thus, the 30th Weather personnel began exploiting the Weather intercept of Detachment 13 almost simultaneously by on-the-spot processing. Further, during October, the Detachment installed one Weather position at Headquarters, 5th Air Force. This traffic was also exploited on the spot by 30th Weather personnel.³²

Actually, by July 1951, the USAFSS Weather capability had developed to a point that the primary reason for the organization and deployment of an AFSA Field Weather Processing Unit (FWPU)* collocated with USN 35 (Yokosuka) appeared less valid to USAFSS. Therefore, on 10 July, USAFSS requested AFSA to consider the transfer of FWPUPAC to the 1st RSM. In doing so, USAFSS pointed out that:³³

EO 3.3b(3)
P.L. 86-36

... closer and more integrated operations / 7
necessary to meet the Air Force needs in the Far East.
This / 25x3 primarily due to the adoption of more difficult
25x3 25x3 substantially affecting
the FWPUPAC capability and requiring greater exploitation of
the air nets as a source of weather information.

30. R&R, DCS/Operations to C/S, Subj: Request for Clarification of Policy, 5 Sept 1951. s.d. 85.
31. Ltr., AFOIN-C/SR to CG, USAFSS, Subj: (Restricted) Responsibility for Providing Special Weather Intelligence to the Air Weather Service, 27 Aug 1951. s.d. 86.
32. TWX, Det 13, 1st RSM to Hq, USAFSS, Cite: CS 889, 7 Oct 1951. s.d. 87.
33. Ltr., Hq USAFSS to DIRAFSA, Subj: Relocation of the Field Weather Processing Unit (Pacific), 10 Jul 1951. s.d. 88

25x3

~~TOP SECRET EIDER~~

59

108

~~TOP SECRET EIDER~~

This proposal was discussed in a called conference on 7 August. At that time the views of AFSA 245 (Weather Section) were presented in rebuttal to the USAFSS proposal. Generally, the views were expressed as technical considerations, the gist of which were to build up the manual Morse positions at Station 39 and develop the FWPU effort at that location. However, AFSA did indicate concurrence to the USAFSS proposal on the following conditions:

AFSS provide 12 manual Morse positions at the 1st RSM to provide raw traffic to FWPU, and provide one voice position immediately and two additional positions later. AFSS maintain direct communications with Sta. 39 for radio-printer traffic and maintain cryptocenter to serve FWPU needs on an OP precedence basis. AFSS maintain adequate communications between the 1st RSM and FWPU consumers.

Meanwhile, FWPU PAC continued to process and disseminate SWI appearing in [25x3] which were [25x3] in the [25x3]. However, scarcity of cribbing material caused FWPU PAC to miss important Weather elements included in these broadcasts. As a result, these reports were of little value to the forecasters. Consequently, the 2143rd Air Weather Wing requested the 1st RSM to attempt [25x3] which it did successfully.* Hence, AFSA expressed concern to USAFSS about the RSM interpretation of existing agreements. Therefore, on 3 August, USAFSS

34. Inclosure 2 to R&R, SWO to ODC, Subj: Report of TDY to Washington, 7 August 1951, 21 Aug 1951. s.d. 89.

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[25x3]

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

109

queried the RSM relative to its Weather operations as follows:³⁵

Advise this Hq on the following items immed. One. Is the dissemination of Wea info to Det 13 for use by 30 Wea Sqdn being accomplished because of direct request by 2143 Wea Wg, or by ur suggestion. Two. What crypto system is Spec. Wea Intel being transmitted to Det 13. Three. Are adequate destruction measures in effect at Det 13 and 30 Wea Sqdn for protection of Spec. Wea Intel. Four. Does 30 Wea Sqdn have Channel 36 facilities. Five. Is all 25x3 Wea Tfc being furnished FWPU. Six. Has FWPU PAC been cognizant at all times of Ur processing six-hourly synoptic 25x3 brdcst. Seven. Is every effort made within Ur Sqdn to prevent duplication of FWPU effort and intercept, particularly 25x3 by full exchange of info....

On 9 August, the RSM assured USAFSS that: The SWI was being supplied by direct request; adequate security measures were in effect; channel 36 facilities were not available, and every effort was being made to cooperate and coordinate matters with FWPU. As for the duplication of effort, the RSM agreed there was some duplication of mission, but that there was little duplication of effort in actual production.

P.L. 86-36
EO 3.3b(3)

Then, the RSM justified its action as follows:³⁶

FEAF gave 1st RSM this commitment when FWPU failed. Even when FWPU did produce, RSM produced consistently faster by at least two hours. The Squadron alone was committed to provide tactical weather to the 5th Air Force. FWPU could not provide cribbing material for the RSM Analysis Section. FEAF commitment required working 25x3 on two-hourly basis since FWPU was committed to work it on six-hourly basis.

35. TWX, CG, USAFSS to CO, 1st RSM, Cite: ODO SZ 663, 3 Aug 1951. s.d. 90.

36. TWX, 1st RSM to CG, USAFSS, Cite: TS 562, 9 Aug 1951. s.d. 91.

~~TOP SECRET EIDER~~

60

DOCID: 3737095

~~TOP SECRET EIDER~~

110

At that point, the RSM stressed the need for all Weather effort in the Far East to be located at one station under unified control.

Subsequent events proved the validity of the RSM recommenda-

[REDACTED] 25x3

EO 3.3b(3)
P.L. 86-36

station characteristics formerly used in cribbing. However, the 1st RSM, fortunately as a matter of routine operations, had partially

[REDACTED] 25x3

[REDACTED] 25x3 on 8 September 1951. Hence, the RSM immediately began supplying the only [REDACTED] 25x3 SWI available to AWS. Moreover, as a result of this early understanding of the Weather problem, the RSM began supplying [REDACTED] 25x3 for transmission on Channel 36. By 30 September, the RSM had found an area and route Weather forecast from [REDACTED] 25x3 traffic, which was [REDACTED] 25x3 and had partially recovered the forecasts for [REDACTED] 25x3.

Influence of the Chinese Air Problem. One of the outstanding problems during the first 18 months of the Korean conflict was the Chinese Communist Air [REDACTED] 25x3 problem. In respect to

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- 37/1. TWX, 1st RSM to USAFSSIO, FEAF, Cite: TS 865, 12 Sept 51. s.d. 92.
 2. TWX, 1st RSM to CG, USAFSS, Cite: TS 888, 14 Sept 51. s.d. 93.
 3. TWX, 1st RSM to USN 35, Cite: TS 910, 17 Sept 1951. s.d. 94.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

111

this problem, it actually arose from an inadequate capability to cope with the situation when it appeared. In fact, when the Chinese entered the conflict (October 1950), the published Intercept Plan for the 1st RSM covering that period did not reflect any Chinese Communist coverage, and only two Korean Communist cases, which were priority No. 6. Security Service did have one or two qualified linguists, but no program existed for training personnel in such work. Furthermore, records created by the Deputy Director of AFSA indicate that AFSA did not commence a study of the Chinese Communist communications problem until November 1950.³⁸

The [25x3] problem was recognized by Headquarters USAFSS in November 1950. At that time, a Chinese linguist officer was transferred from DCS/Plans to DCS/Operations. A small section, consisting of one officer, 6 airmen, and 2 civilians, was organized to attempt an evaluation of the [25x3] Traffic and the [25x3]

EO 3.3b(3)
P.L. 86-36

[25x3]

Negotiations were also undertaken during November of 1950 to establish a Chinese language school at Yale University for Air Force personnel. Airmen were interviewed and selected for the course at

38. Ltr., Dept of Defense, AFSA, to CG, USAFSS, Subj: Chinese Voice Intercept and Field Processing, 14 May 1951. s.d. 95.

* Information furnished by Major Lewis D. Nixon; Chinese Language Officer, who organized the effort.

HQS USAFSS TSC No 19-09525

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Page 61 of 132 Pages

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

Yale and a curriculum was drawn up similar to the one under the Russian Language program.

In February 1951, a current copy of the Chinese Communications Telegraphic Code book was received in Headquarters, USAFSS, from the SSO, FEAF, which compared favorably with the World War II Chinese code book produced by ASA. This information was relayed to AFSA and a request was made for a republication of the book. Five airmen began training in February 1951 in the translation of [25x3] messages of a

EO 3.3b(3)
P.L. 86-36

[25x3] by the utilization of standard Ming phrases, even though these airmen were not trained linguists.

Following the entrance of the Chinese into the conflict, USAFSS assigned five [25x3] cases to the 1st RSM mission, three of which were

EO 3.3b(3)
P.L. 86-36

[25x3] By the end of January 1951, the 1st RSM had three positions covering Chinese Communist Air cases and several military and naval cases. In addition, the RSM was processing and decrypting [25x3] messages.³⁹

[25x3] By 1 April, the RSM still had three positions covering [25x3] However, the majority of the traffic exploitation was being conducted at AFSA. This Zone of Interior processing and decryption produced information which lost its value because it was not exploited in the field and immediately passed to field commanders.

39. Monthly Status Report, 1st RSM, 3 Feb 1951. TSC 51194. The RSM began developing a Chinese capability prior to this time; see Chapter II of this study.

~~TOP SECRET EIDER~~

TOP SECRET EIDER

113

Therefore, USAFSS transferred its one Chinese linguist (qualified) and two partially trained cryptanalysts to the 1st RSM and instructed the unit to concentrate on processing [25x3] traffic. ⁴⁰ Of the five airmen who began training in February 1951, two were transferred to the 1st RSM in April, and the remaining three departed in June.*

EO 3.3b(3)
P.L. 86-36

Also, by April 1951, AFSA had organized a [25x3] Fusion Party (C/A, T/A and translations combined) and was working traffic from 14 U.S. positions and traffic submitted by the [25x3]. Nevertheless, the only successfully [25x3] were voice transmissions of various ground elements of the [25x3] engaged in Korea. This [25x3] was intercepted by ASA and Navy positions. It consisted of transmissions composed of approximately 70 per cent voice

P.L. 86-36
EO 3.3b(3)

[25x3]
clear-text Chinese. It was poor quality traffic because the intercept operators were not trained to handle that type of intercept. At that point the full scope of the Chinese Communist voice problem was undetermined. Further, USAFSS was not intercepting any [25x3] voice traffic but

40. Ltr., Hq, USAFSS to CO, 1st RSM, Subj: Development of [25x3] Intercept, 7 Apr 1951. s.d. 96.

41. R&R, OAD-1AF to OAD, Subj: Report of TDY to AFSA to Study [25x3] Problem, 23 Apr 1951. s.d. 97.

* Information furnished by Major Lewis D. Nixon.

HQS USAFSS 1st RSM 1951

TOP SECRET EIDER

62

111

~~TOP SECRET EIDER~~

As a consequence of the backwardness of the [25x3] program and the limited USAFSS solution, which caused considerable coordination between AFSA and USAFSS, the DIRAFSA officially entered the [25x3] problem early in May 1951. On that date, the Deputy Director, in a letter to the Commanding General, USAFSS, stated that the use of voice transmissions was fairly widespread throughout the Chinese Communist Ground Forces, particularly during tactical operations, but that no known [25x3] Communications originating in China and Korea had been intercepted. The Deputy also pointed out that there existed two obstacles in exploiting Chinese voice transmissions. The greater one was viewed as the Chinese language itself. About this obstacle, the Deputy wrote: ⁴²

EO 3.3b(3)
P.L. 86-36

. . . Chinese is a tonal language, and even proper tuning of the signal for good intercept results requires some knowledge of the spoken language; intercept recordings made without benefit of linguist aid are of poor quality and exceedingly difficult to transcribe. As mentioned above, . . . the use of the language [for military transmissions] has been limited to phonetic numbers and to stereotyped operator conversations. Consequently, the production of intelligence from this material has required a greater knowledge of written language than of spoken language. It can be expected, however, that when Chinese Communist air/ground and air/air communications are encountered, transmissions will consist almost entirely of conversations in spoken language. Processing of such material would require personnel with a wider knowledge of spoken Chinese than are required at present.

⁴². Ltr., Dept of Defense, AFSA, to CG, USAFSS, Subj: Chinese Voice Intercept and Field Processing, 14 May 1951. s.d. 95.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

115

About the second obstacle, the Director stated:⁴³

Another major problem has been the lack of sufficient voice-intercept facilities. At present only five positions are available to the entire voice program. As a result much remains to be learned about Chinese Communist voice communications. The Army Security Agency has taken steps to provide an additional nine positions in Korea. These positions will be operational as soon as equipment reaches the field and specially trained operators are made available.

As an interim measure, AFSA also proposed to crash train ten operators for Chinese voice-Morse intercept to explore and define the problem. The training program in existence then followed the pattern established by ASA, i.e., train fully qualified morse operators in a concentrated (four weeks) language course in Chinese, Mandarin dialect to enable the operators to understand Chinese digits as spoken and the more important words used in establishing schedules, frequencies, etc. Further, AFSA agreed to enroll five qualified Air Force Morse operators in the course each week, commencing about 1 June 1951.

In relation to the analysis phase of the problem, AFSA agreed to accept four qualified T/A persons every two weeks for OJT in 253 traffic and three qualified C/A persons immediately for OJT. Finally, the Deputy Director stated that there was very little AFSA could do in providing USAFSS fully qualified Chinese translators. However, the Deputy Director pointed out that the more qualified Chinese translators at AFSA were on TDY at ASAPAC and would remain there indefinitely.

EO 3.3b(3)
P.L. 86-36

43. Ibid. s.d. 95.

~~TOP SECRET EIDER~~ 63

~~TOP SECRET EIDER~~

USAFSS, on 1 June 1951, declined the operator training proposal because USAFSS had established a Chinese Language Training course at Yale which was designed to fulfill the specific requirements of voice intercept operators.* USAFSS also declined the T/A training proposal, but requested AFSA to train one qualified C/A person in the Chinese problem.⁴⁴ Nevertheless, AFSA requested that the language course (Yale) graduates be sent to AFSA for at least two weeks participation in the ASA Operator Intercept training and that all T/A personnel receive additional training at AFSA on both ~~CCA~~ Morse and 25x3 traffic.⁴⁵

P.L. 86-36
EO 3.3b(3)

Meantime, by early May 1951, AFOIN had indicated an interest in the USAFSS plans for solving the 25x3 problem. By that time, Headquarters, USAFSS had decided to deploy the 15th RSM approximately 1 July 1951. It was scheduled to attack the 25x3 problem as follows:⁴⁶

1. Exploitation at the nearest possible point of intercept of air/ground, ground/air and weather emanating from 25x3

25x3

2. Coordinate closely with ASAPAC the above efforts in order to insure maximum Chinese Communist COMINT from available Army, Navy and Air Force facilities.

44. 1st Ind (Ltr, Dept of Defense, AFSA, to CG, USAFSS, Subj: Chinese Voice Intercept and Field Processing, 14 May 1951) Hq USAFSS to DIRAFSA, 1 Jun 1951. s.d. 98.

45. 2d Ind (Ibid) DIRAFSA to CG, USAFSS, 27 Jun 1951. s.d. 99.

46. R&R, ODO to AFOIN-C/SR, Subj: 7 9 May 1951. s.d. 100.

* USAFSS had determined by March 1951 that Chinese Voice Intercept Operators would have to possess a greater knowledge of the language than otherwise required.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

117

However, in replying to the AFOIN query relative to the USAFSS plans for solution of the Chinese Air problem, USAFSS pointed out that the above approach would necessitate the deployment of a linguist capability not currently available. In the meantime, USAFSS proposed that the local field effort (ASAPAC - 1st RSM) be devoted to the current procedure.* In fulfillment thereof, the advance echelon of the 15th RSM was deployed to Japan 9 June 1951. It actually became operational as Detachment 12 (Ashiya) of the 1st RSM in August 1951.

Hence, the 1st RSM and ASAPAC continued to work the 25x3 problem with resources available. Other than the Ashiya intercept project, USAFSS continued to develop its Chinese effort in Korea. However, the main processing capability was developed at Johnson. The 1st RSM developed a fair capability for translating and 25x3 ChiCom messages by August 1951. In addition, USAFSS transferred more qualified linguist personnel to the Far East in August and instructed the RSM to develop its ChiCom processing along the Fusion Party lines. ^{b7}

EO 3.3b(3)
P.L. 86-36

By October 1951, the efforts of AFSA to produce the 25x3 picture at short intervals had fallen far short of the original objective,

47. TWX, CG, USAFSS to CO, 1st RSM, Cite: ODC-SZ 220, 28 Aug 51. s.d. 101.

* By June 1951, the 1st RSM had three positions covering Chinese Air Defense and Air/Ground cases and AFSA was supplying IBM on runs from all CCA cases on cover in the Far East.

~~TOP SECRET EIDER~~ 64

~~TOP SECRET EIDER~~

EO 3.3b(3)
P.L. 86-36

primarily because of inadequate communications facilities for tele-typing raw traffic and a lack of a uniform manner of exchanging decrypts among AFSA, ASAPAC and the 1st RSM. Therefore, AFSA suggested to USAFSS that a standard exchange format for 25x3 flight reports be adopted and all telegraphic exchange of data 25x3 be reduced to the abbreviated format.⁴⁸ Concurrently, AFSA indicated it would furnish USAFSS a limited number of Chinese linguists. At that point, inadequate Chinese translators were severely retarding field exploitation of collected data.⁴⁹ Actually, the RSM needed 14 additional Chinese linguists to handle the daily traffic. Hence, it readily agreed with the AFSA suggestion. In addition, the RSM requested permission to hire qualified Mandarin linguists in Japan under terms of the decision made by USCIB in August 1951.⁵⁰

Influence of Tactical Requirements. In the meanwhile, the 1st RSM continued to advocate more freedom in relation to specific and emergency missions. Also, the RSM continued to be responsive to theater or tactical needs in regard to processing activity. In respect to field

48. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 50172, 22 Oct 1951. s.d. 102.

49. TWX, CG, USAFSS to CG, 1st RSM, Cite: ODC-95655, 26 Oct 1951. s.d. 103.

50. TWX, 1st RSM to CG, USAFSS, Cite: TS 380, 8 Nov 1951. s.d. 104.

* This decision allowed indigenous personnel to be employed as translators, providing they were physically separated from COMINT activity and did not receive technical (COMINT) backup developed by U.S. COMINT agencies.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

119

processing, the Director of Intelligence, FEAF, in early August 1951, stressed the need for timely and current topical analysis as opposed to long range trends.* Hence, the 1st RSM initiated a series of short, daily wire reports to meet this specific FEAF requirement.⁵¹ Moreover, the RSM continued to apply the tactical processing concept throughout August-September as indicated by the development of its TACOMINT effort.

The field concept of tactical service gained some official recognition from both AFSA and USAFSS in relation to the Chinese Air problem. Nevertheless, the official implementation of the modified practice was qualified by procedural requirements which still reflected strategic operational concepts.⁵² For an explanation of the above statement as well as an indication of the RSM concept of operations, the following excerpts from the RSM rebuttal to the AFSA-USAFSS proposal are quoted:⁵³

REUF OAD-SZ 330. Para 1. Concur in gen with desirability of standardized format for electrical forwarding of Chinese Air Traffic in lieu of raw traffic.** Para. 2. Strongly disagree with proposal for preparation of format (decryption and translation) by processing party at Ashiya. At present there are not sufficient personnel to permit any dispersal of Chinese processing. Even upon arrival additional

P.L. 86-36
EO 3.3b(3)

51. TWX, USAFSSLO, FEAF to Hq, USAFSS, Cite: MH 708, 16 Aug 1951. s.d. 105.
52. TWX, CG, USAFSS to CO, 1st RSM, Cite: OAD SZ 330, 26 Oct 1951. s.d. 106.
53. TWX, 1st RSM to Hq, USAFSS, Cite: TS 434, 6 Nov 1951. s.d. 107.

* Records also reveal that the Theater Watch Committee made extensive use of Air Force COMINT, but was primarily interested in the current or timely analysis.

** See Influence of Chinese Air Problem, this Chapter.

~~TOP SECRET EIDER~~

65

~~TOP SECRET EIDER~~

personnel, dispersal remains undesirable. Following facts presented: a. At Niigata, more favorable signal reception, better comm circuits and shorter courier time all indicate desirability of some coverage of 25x3 there in near future. If so, any processing at Ashiya should logically be paralleled at Niigata. b. High grade translators will remain critical. Our immediate reporting to 5th Air Force and FEAF on Chinese Air is vital to them and must be based on that talent we can muster. c. Technical and intelligence tie-in between Chinese and Russian processing is close and becoming increasingly closer. This tie-in can be exploited only by adhering to the centralized processing to be near consumer. . . Weather normally appearing on these nets (25x3 etc) is useful here even though not at AFSA. Format prepared at Ashiya would have to include WX. Format prepared here would not. d. Proposed format, as understood here, will save little if any comm time or groups in comparison to forwarding raw traffic from Ashiya and Niigata to here. Real savings comes if processing personnel at AFSA, ASAPAC, etc., do use translations prepared and forwarded in format from first point of processing. . . . Para 3. . . . Format does not provide for unusual or significant portions of msgs such as 'to Korea for combat', 'instrument bombing', 'planes failed to return' and the name of the lead pilots on various mass flights. Such phrases are of tactical value and must be considered as necessary by us. . . . Para 5. In view of current critical importance FEAF and 5th Air Force of Chinese Air processing, earnestly request any change affecting this problem be considered more in light of this war zone and that they be coordinated with Tactical Air organizations.

EO 3.3b(3)
P.L. 86-36

IMPLEMENTATION OF CONCEPTS AND SERVICES

From late December 1950 to early June 1951, Detachment "C" (Redesignated Detachment 13 on 1 February 1951) continued operations at Taegu. During the early part of this period the unit was primarily concerned with the Korean problem, i.e., CW intercept. Hence, its techniques employed and contributions to the combat situation were of interest to the Ground Forces as well as the Air Force.* By early January

* The NKAFF was almost annihilated in the early days of the war. Therefore, Det 13 and Cho's effort on the Korean problem was devoted almost exclusively to the NK Ground Forces' Communications. See Chapter II.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

121

1951, the Detachment was able to completely decipher and read the North Korean intercepts. In addition to on-the-spot use of the information by EUSAK and 5th Air Force, the Detachment forwarded its translations to the 1st RSM for further processing and utilization.⁵⁴

Early Intelligence Service. One of the outstanding early accomplishments of Detachment 13 actually began late in January 1951. On 30 January the VIII Corps of the North Korean Army began moving from Yenchi, Manchuria to an assembly area around Wonsan on the east coast. At the same time, the Corps began sending daily reports on the status of the movement to the Auxiliary Command Post at Tunghua. The Detachment picked up some of the early traffic, recognized its potential value and immediately passed it to FEAF. Consequently, the movement was constantly harassed by UN air and sea bombardment which caused the North Koreans long delays and detours, steady attrition and in many instances complete abandonment of rail travel for foot and truck travel.

Throughout February the Detachment continued to intercept and exploit this source of information. Thus, by the end of February only a part of the Corps had reached the assembly area, and its three divisions were strung from Wonsan to Hamhung to the Manchurian border. This deployment or order of battle was also another item contributed by the Detachment from its intercept of administrative messages and damage reports. The Detachment continued to chart the route and whereabouts

⁵⁴. Monthly Status Report, 1st RSM, 3 Feb 1951.

~~TOP SECRET EIDER~~ 66

122

~~TOP SECRET EIDER~~

of the three divisions throughout March and to keep 5th Air Force informed. As a result, elements of the Corps were still enroute to the area in early April 1951.⁵⁵

Moreover, the Detachment continued to supply information to the 5th Air Force and FEAF which was employed to frustrate enemy intentions. A typical example of this service, cited here because the effect on future COMINT services, occurred on 20 June 1951. About 2100 on the night of 19 June 1951, Detachment 13 intercepted a message from the NKAF Headquarters at Pyongyang which laid an operational order on one of its units at Sinanju. The order instructed the unit to launch an air attack with conventional bombers and MIG escort against the Island "Chain" at 0600 the next morning. Thirty minutes later, the Detachment delivered the item to the SSO, 5th Air Force. The Commanding General, 5th Air Force, probably knew about the planned attack before the Commander of the NKAF unit at Sinanju did.

The next day the Communist conventionals encountered F-51's and the MIG escort met F-86's. Also, the next day, the AFSSINO, FEAF, sent the following relative message to the 1st RSM:⁵⁶

. . . Com Gen well pleased with prompt and excellent intel rendered. Fol are results your effort: At APHWY6WO 010900K 24 F-51 engaged 6 to 8 IL-10 and Yaks with claim 1 Yak and

55. USAFSS In The Korean War, Subj: Targets-Rail Movement of North Korean VIII Corps. This report was compiled by Hq USAFSS in April 1952. s.d. 108.

56. TWX, USAFSSLO FEAF to 1st RSM, Cite: MH 603, 20 Jun 1951. s.d. 109.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

123

2 IL-10 destroyed and 1 IL-10 probably destroyed. Also 2 IL-10 damaged. At approx same time 32 F-86 flying top cover for F-51 met 24 MIG type acft: Claims were 4 MIG's damaged. The same group of F-51 attacked by 6 MIG and 1 F-51 lost.

There were several queries between Pyongyang and Sinanju as to what happened to the NKAF. Shortly thereafter the value of the [25x3] traffic declined. However, the net appeared again in November with only a [25x3] [57]

Beginning of the USAFSS Voice Effort. Meantime, developments in the Air war began to emphasize the need for additional COMINT type services to the Air Force. Simultaneously, an extensive Russian communications network, apparently concerned with air operations, appeared in Korea. It was soon determined (by RSM and Detachment 13) that the specific functions of this network were concerned with early warning, aircraft tracking and ground controlled interception of UN aircraft. However, timely and useful exploitation of this network required a voice capability, which was almost nil at the RSM. The one installed voice position (at Johnson) was copying [25x3] traffic. Yet, the position was not prolific because of its poor location.

EO 3.3b(3)
P.L. 86-36

Therefore, on 9 February, the voice effort was transferred to Detachment 12 (Ashiya). It began operation 18 February on PVO cases. Nevertheless, the traffic had to be transmitted to Johnson for processing, because the processing personnel had remained at Johnson to

57. Monthly Status Report, 1st RSM, 12 Dec 1951.

~~TOP SECRET EIDER~~

67

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124

~~TOP SECRET EIDER~~

process the combined take from RSM, Navy and Army. Originally, the RSM planned to install two 24-hour voice positions at Ashiya, but scarcity of voice personnel restricted the initial effort to one position operated by five airmen.⁵⁸ During March, additional voice personnel arrived in the RSM and one other voice position was added at Ashiya. Also, the positions began copying [REDACTED] 25x3

P.L. 86-36
EO 3.3b(3)

Outstanding Requirement Fulfilled. Concurrently, the Director of Intelligence, USAF, designated the determination of the nationality of the pilots operating Soviet-type aircraft in the Korean theater and the determination of the procedures and effectiveness of the GCI in the Antung area as the number one intelligence projects for March.⁶⁰ Although this requirement actually originated in the FEC, it was placed on Air Force agencies by Headquarters USAF. Consequently, Headquarters USAFSS attacked the problem as follows:

The RSM, on 21 March, was directed to approach the problem from three ways:⁶¹

1. To continue analysis of traffic passed on [REDACTED] 25x3 DO and Korean decrypts supplied by Detachment 13.

58. Monthly Status Report, 1st RSM, 1 Mar 1951.

59. Monthly Status Report, 1st RSM, 3 Apr 1951.

60. TWX, USAFSSLO, FEAF to USAFSS, Cite: TSW 155, 27 Mar 1951. s.d. 110.

61. TWX, Hq USAFSS to CO, 1st RSM, Cite: OAD-3 SZ 440, 21 Mar 1951. s.d. 111.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

125

2. To place a voice intercept position on an aircraft used by Detachment 6, 136th Communications Security Squadron for monitoring US Air Force circuits in Korea.

3. To establish a Chinese-Korean voice position (search) at Detachment 13.

At the same time, Headquarters USAFSS pointed out to the RSM that Security Regulations prohibited assignment of any indoctrinated personnel to any mission involving risk of capture for interrogation by unfriendly parties.

By the end of March, the RSM had determined that the voice intercept effort could not be installed aboard the Communications Security aircraft primarily because the aircraft flew over enemy territory. However, the RSM reduced the voice effort at Ashiya to one position and installed a Chinese-Korean voice (search) position at Detachment 13. In addition, the RSM prompted a request from FEAF to the Director of Intelligence, USAF, for a special aircraft (C-46) to be used as an airborne platform for such activity (voice intercept).⁶² The aircraft was not employed at that time, however. The airborne effort is further discussed in this study in connection with the VHF problem.

P.L. 86-36
EO 3.3b(3)

Meanwhile, prior to receipt of this urgent intelligence requirement, the RSM had been developing a case 25x3 intercepted at Ashiya, which had all the characteristics of Soviet aircraft activity in North Korea. Consequently, before the end of March, the RSM

62. TWX, 1st RSM to Hq, USAFSS, Cite: TS 282, 26 Mar 1951. s.d. 112.

~~TOP SECRET EIDER~~

68

~~TOP SECRET EIDER~~

wired FEAF and Headquarters USAFSS that the pilots of the jet aircraft concerned were Russian-speaking personnel.⁶³ As a result of this item, both FEAF and 5th Air Force immediately placed pressure on the RSM to establish a World War II "Y" Service in Korea for the Tactical Air Units.

Birth of "Y" Service. Since the RSM did not have sufficient voice personnel and equipment to establish the requested service, it informed FEAF on 31 March that the service would have to be delayed until necessary personnel and equipment arrived.⁶⁴ As an interim measure, the RSM suggested that alerts or items concerning enemy air activity, based on Ashiya voice intercepts, be relayed to FEAF by telephone. FEAF could then alert Detachment 13 when Ashiya noted enemy aircraft as being operational in the North Korean area. The interim system was begun on 4 April and continued until 26 April. It did not fulfill the "Y" Service requirement, was of doubtful security, and was very untimely.

Concurrently, FEAF called a conference on the problem on 4 April. At that time, the RSM personnel reiterated their requirement for voice personnel and equipment to the Director of Intelligence, FEAF, as a prerequisite to the service.* Hence, the Commanding General (General

63. Monthly Status Report, 1st RSM, 3 Apr 1951.

64. TWX, 1st RSM to AFSSLNO, FEAF, Cite: HM 772, 31 Mar 1951.

* Information furnished by Major William P. Fife, one of the RSM officers who attended the conference.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

127

Stratemeyer) FEAF, initiated the following wire to the Chief of Staff (General Vandenberg), USAF.⁶⁵

Late indications of Soviet operated jets engaged in combat over Korea plus continued buildup of enemy air potential in Manchuria requires immediate implementation of radio voice intercept teams with D/F capability in Korea to provide instant spot info for scrambling and vectoring United Nations aircraft to airborne targets. Present capability of AFSS Detachment in Korea insufficient to provide this service. Request highest priority be given to shipment of 12 Russian Voice intercept operators, 3 experienced Russian voice analysts and 1 experienced officer Russian voice analyst to First Radio Squadron, Mobile to meet this urgent requirement.

This message was passed on to USAFSS on 4 April by AFOIN with a request for USAFSS to immediately wire its estimated capability to fulfill the requirement. On 5 April USAFSS informed FEAF that the number of personnel requested by General Stratemeyer could not be furnished without jeopardizing commitments of USAFSS for early warning defense of the United States. Also, USAFSS notified FEAF that one officer and eight airmen were being airshipped to Japan for further assignment in Korea.⁶⁶ Unfortunately, the 1st RSM, an action addressee on the USAFSS wire, did not receive the message until 10 April, thus delaying organization action for several days.

Organization of TEAM I. On 10 April, the RSM received the delayed wire and immediately began devising an operational plan for

65. TWX, AFOIN-C/SR to CG, USAFSS, Cite: SRM 103, 4 Apr 1951. s.d. 113.

66. TWX, CG, USAFSS to D/I, Hq, FEAF, Cite: ODO SZ 708, 5 Apr 1951. s.d. 114.

~~TOP SECRET EIDER~~

69

~~TOP SECRET EIDER~~

a "Y" Service Team. It was determined that available equipment would limit the method of passing the collected information to the TACC to simultaneous transmission by land-line from the intercept site. Therefore, a system using a telephone operator mouthpiece, for the intercept operator, and a squawkbox, for the Tactical Air Controller, was selected. The basic equipment selected for the Team included an HO-17, a dipole antenna, two radio receivers (one Superpro and one Collins 51J), two recorders (RT-11A) and two P-95 power units. The two receivers and recorders and operators desk were installed inside the HO-17 to permit simultaneous interception, recording, translation and relay to the TACC of messages intercepted on the voice (Russian) GCI net.

It was also planned to establish the Unit (Team I) apart from the other COMINT agency in Korea so that the JOC could use the information to the maximum extent in vectoring UN aircraft to airborne targets. Actually, the information would be passed directly to the JOC by the Team.⁶⁷ JOC would relay it to UN aircraft by simple, coded voice transmissions. Since the intercept personnel did not possess six or more arms, the RSM incorporated a system of automatic switching devices in the recorders. This would permit the operator to use one hand for operation of the telephone headset. Another airman would act as the analyst, viz., perform current analysis on the intercepts, keep the

67. TWX, LO, FEAF, to CG, USAFSS, Cite: MH 531, 20 Apr 1951. s.d. 115

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

129

Team current on the tactical changes occurring on the enemy net and keep the grid zone chart accurate and timely. Hence, the Team would not have to rely on Detachment 13. The analyst, during aircraft activity in North Korea, would also plot all UN and enemy aircraft in order to provide a current and concise picture of the activity.

Subsequently, the personnel from Headquarters, USAFSS, arrived in Japan and FEAF established an operational deadline of 27 April for the Team. The equipment and airmen personnel were air-shipped to K-13 (Suwon) on 23 April. The OIC had flown to Korea on 22 April. Then, the Team and equipment were moved by truck to K-6 (Pyongteck) and deployed adjacent to the Tactical Air Controller. By 2300 on 24 April the Team was patched into the TAC by land-line and was operational. During the morning of the 24th, the OIC of the Team and the CO of the 1st RSM developed an operations plan in conjunction with the CO of the 606th AC&W unit so that the information could be provided cover by the radar unit and supplied to the 5th Air Force Fighter units in a secure manner. At the same time, the CO of the 1st RSM determined, in conjunction with the CO and Operations Officer of the 4th Fighter-Interceptor Wing, the minimum amount of information required by the pilots from the TAC for successful exploitation.

Records reveal that on the third day of operations, Team I was able to render a tactical service to the 5th Air Force. The Team, through its operational techniques, discussed above, was able to determine that a 4th Fighter Sweep in Northwest Korea was being

~~TOP SECRET EIDER~~

70

130

~~TOP SECRET EIDER~~

boxed by a MIG flanking maneuver. This information was passed to the Sweep via the controller, thus allowing the Flight to avoid the trap. The following account of the incident and early operations of the Team was written by the OIC of the Team on 5 May 1951.⁶⁸

We regret that Major Jameson / was not here the afternoon of the 29th / as at that time we were able to do as he requested in tracing our friendly aircraft through the enemy zoning system. It should be noted that this was not. . . due to the fact that there was only one flight of 4th Fighter aircraft in that area and this flight path was such that we could keep astride of events with our limited resources. Even at the slow rate of communications received, it took the combined efforts of the three men / to keep astride of events. Our flight path traced here was nearly identical to that disclosed by Col Eglestrom / who we later contacted. The information we passed to friendly aircraft in regards to numbers, altitudes, and areas enabled them to ascertain that they were being boxed, therefore, breaking away in time to avoid a trap.

We also arranged with 4th Fighter leaders to check their areas upon a request for a time check. This has enabled us to find and check the area referred to as "Cliff", as well as the general location of the areas referred to as "hot dog" and "steam engine". This system has shown to our satisfaction that the radar / location station is at Sanch'on. . . on the 29th the. . . distances and zone checks received here were such that the North and South lines between Zones "2" and "6" have been definitely established. . . .

Again on the 1st of May we were able to give numbers of enemy flights, zones and altitudes, and times they sighted our aircraft. This enabled 4th Fighter pilots

68. Ltr., Team I to CO 1st RSM, Subj: Weekly Report and Replies, 5 May 1951.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

131

to drop tanks before being jumped. . . . The 4th Fighter score for the day was one enemy destroyed, two enemy damaged. On 2nd of May we followed the activities, but due to the number of ships, both friendly and enemy, we were unable to track the flights. We received no tracks from the enemy radar locating station and it is believed they have returned to CW for these communications. . . . On the 3rd of May it was noted that the information given by enemy operations decreased. This has not hindered our operations to any great extent because we are still able to note when the enemy fighters are taking off, altitudes, direction, and general location of our aircraft in relation to their aircraft is still given. Their radar locating stations are still reporting by means other than voice. . . .

Originally, neither the USAFSS nor the AC&W personnel were sure of just exactly what information was required. Reports on both UN and enemy aircraft were passed to the TACC. Information on friendly aircraft, while useful in establishing the validity of grid zone systems in use by the enemy, was soon determined to be non-essential to the TACC. Consequently, transmission of this information to the TACC was discontinued. Until September 1951, very little effort was made to camouflage the type of information received by the COMINT Team I. The grid codes that had been determined were given to the Tactical Air Controller and the intercepted voice traffic was passed directly to him for inclusion in the AC&W system. No pure voice intercepted traffic was ever relayed to the fighter aircraft by the TADC controller. Later on, Team I items were passed by telephone line to the Radar Controller in an adjoining tent, who would disguise the information (convert it to radar derived terminology) and put it on the air to a flying Air Controller. This controller

~~TOP SECRET EIDER~~ 71

~~TOP SECRET EIDER~~

would relay the information to the pilots flying the missions. A simple word substitution code was used to identify enemy and friendly aircraft and ground check points. Information was also relayed to aircraft as normal GCI instructions.

Team I remained at K-6 until 2 June 1951. At that time, it moved with the 606th AC&W Squadron to a hill four miles northeast of Kimpo Air Field. Although the new site afforded better radar and intercept coverage immediately, the reception of the Soviet GCI net and communications with the UN Aircraft Controller deteriorated during the summer months. For a short time, an aircraft was used in the Pyongyang area to relay the TACC instructions. In addition, the Team experimented with many antenna arrays and reception factors. However, these attempts did not prove completely successful.

Expansion of Voice Intercept Service. Following the implementation of Team I, 5th Air Force proposed the establishment of another RSM Team on the Island of Paengyong-Do (XC-5013) to intercept Korean, Chinese, and Russian airborne voice transmissions emanating from the Sinanju area.^{*69} In addition to the proposal, 5th Air Force, at that time, placed its first formal requirement on Detachment 13, which, if fulfilled, would have required a full RSM "Y" service in Korea. This fact was pointed out to 5th Air Force by the Commanding Officer,

69. Ltr., 5th AF to CO, Det C, 1st RSM, Subj: Fifth Air Force Comint Requirements, 22 May 1951. s.d. 116.

* Team I was never able to clearly read all the airborne voice transmissions from that area.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

133

Detachment 13, on 25 May 1951 and referred to the RSM for action.⁷⁰
Hence, 5th Air Force called a conference for 8 June 1951 to settle the problem.

TACOMINT Concept Crystallized. Although the 1st RSM was, in practice, providing a limited "Y" type service in Korea, it viewed the proposed expansion as a project which would require the Squadron to establish communications activities beyond those in keeping with its mission. Further, since the official correspondence on the implementation of the existing tactical service was almost nil, RSM representatives proceeded to Headquarters, 5th Air Force, to review the problem and obtain an official reaction. It was readily determined that the 5th Air Force's need for RSM service was as follows:⁷¹

1. Provide "Y" service to all tactical aircraft operating in Korea which would consist of the following timely information on the enemy:

- a. Number and type of aircraft involved.
- b. Their position.
- c. Their altitude.
- d. Their heading.
- e. Their intentions whenever possible.

2. Prepare an SOP which would serve as a guide for all units using this service.

3. Monitor the manner with which the product of this form of COMINT was handled in order to protect its source.

70. 1st Ind (Ltr Hq Fifth AF to CO Det C, 1st RSM, Subj: Fifth Air Force Comint Requirements, 22 May 1951) Hq Det 13, 1st RSM to SSO, ODI, Fifth AF, 25 May 51. s.d. 117.

71. R&R, Maj William P. Fife to Maj Lowell R. Jameson, Subj: Expansion of Voice Intercept Service, 11 Jun 1951.

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~~TOP SECRET EIDER~~

72

Page of 192

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~~TOP SECRET EIDER~~

In relation to the first requirement, it was determined by the RSM representatives that Team I was translating and passing virtually all enemy GCI* transmissions to the 606th AC&W unit already. As for the other two requirements, the RSM representatives believed the Squadron would be out of order in attempting to change methods of dissemination and exploitation, other than those methods employed between Team I and the 606th AC&W Squadron. The RSM representatives further viewed the current operations procedure (between Team I and 606th) as efficient and recommended that the procedure not be changed. Moreover, the RSM representatives recommended that the 606th AC&W unit prepare the SOP outlining its services available to friendly aircraft and brief the appropriate officers in the air units on the service to be received. The 606th concurred with the recommendation and the information was passed simultaneously to the Deputy for Operations, 5th Air Force and Commanding Officer, 1st RSM.⁷²

Organization of Team I (Advanced). Following the conference at 5th Air Force, the Commanding General, 5th Air Force (General Everest) wrote the Commanding General, USAFSS (General Lynn) and urged that every effort be made to improve the capability of Team I (Interception) and to develop a similar capability in Korean and Chinese

72. R&R, Maj William P. Fife to Colonel Meyers (D/O, 5th AF), Subj: Expansion of Voice Intercept Service, 11 Jun 1951.

* This service was limited to transmissions from the Russian GCI net.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

135

voice intercept.⁷³ General Everest also expressed his appreciation for the effort USAFSS was making to have the existing regulations modified so that certain types of COMINT could be exploited better.* This was actually the first official recognition given the TACOMINT problem by Tactical Air units.

Concurrently, the A-2, 5th Air Force, forwarded the following wire to A-2, FFAF, in regard to the deployment of Team I (Advanced).⁷⁴

Team I of 1st RSM, now located at radar site near Kimpo, is unable to read Antung CCI from 1000-1600 hours this time of year and have only occasionally read airborne MIG type and ground control stations this side of Yalu. . . . Our suggestion is for Team II. . . to put on this island ⁷ one receiver and two linguist operators and portable tape recorder. Our AC&W will furnish two controllers and WHE for direct passing of info as radar plots to aircrews. This island has light-weight radar and FM link to Kimpo site. If results unsatisfactory on this island suggest Chodo (XC 6070) and if necessary Talhwaso (XD 4065). General Everest vitally concerned and has written General Lynn regarding increasing this tactical effort and including Chinese. End.

The drawback to this proposal, as viewed by USAFSS, was the proximity of the island to enemy-held territory. It was within six miles of enemy territory and accessible by air only at low tide. Hence, the Security Regulations were again influencing USAFSS action. However, 5th Air Force agreed to provide the air evacuation service,

73. Personal Ltr, Maj Gen F. F. Everest to Brig Gen R. H. Lynn, CG, USAFSS, 6 Jul 1951. s.d. 118.

74. TWX, SSO Fifth AF to D/I, SSO, FFAF, Cite: KIT-1324, 7 Jul 1951. s.d. 119.

* General Everest also requested that a liaison officer be sent to Korea to control all USAFSS units in Korea in order to provide better controls and to advise him on the proper use of COMINT. An officer was sent from USAFSS on June 3 to the 1st RSM to comply with this request.

~~TOP SECRET EIDER~~

73

136

~~TOP SECRET EIDER~~

the island was tested and a unit (Russian voice effort) was installed on Paengyong-Do on 6 August 1951 by direct order of the Commanding General, 5th Air Force. The 606th AC&W unit provided a transmitter (FM carrier with scrambles and directional characteristics) and power. This team was withdrawn 18 September 1951 after reception improved at Kimpo, which had continued in full operation during the summer.

In August 1951, the enemy began sporadic night activity. The importance of this activity was not realized until September when the enemy began the GCI direction of intercept fighters on Allied B-26 night missions. Therefore, in September 1951, Team I began 24-hour operation in order to provide "Y" type service to the TADC on a 24-hour basis. The enemy GCI controller used a large area type of zoning system for night operations (consisting of three zones) and directed the intercept fighters with specific instructions after the previously indicated zone had been entered. A simple alert code system was devised for the three zones and the codes were included daily in 5th Air Force Fragmentation orders to flying units. Detailed briefings were given to the Commanders of the B-26 units as to the necessity and importance of the warnings (alert codes). For a six-month period this procedure was credited with complete success in warning the B-26's of attempted attack from enemy fighters. The alerting system became impracticable when large scale B-29 (saturation) raids were later initiated.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

137

Further, by late October 1951, the RSM TACOMINT effort had provided a considerable amount of knowledge about the night combat techniques employed by the Chinese Communist Air Forces. This included type of aircraft used on various missions as well as the staging point for fighter escort. Finally, COMINT had indicated that the Chinese Communists had obtained a high degree of proficiency in scrambling fighter aircraft, particularly at Antung, where 81 MIG-15 aircraft were scrambled during a 25-minute period. Further, the "Y" Service type of operations had ascertained that plotting of UN aircraft positions in voice summaries was of little timely value and had requested permission to discontinue the activity.⁷⁵

Deployment of Team II. In respect to the desire of General Everest, expressed on 6 July 1951, for a Chinese and North Korean voice "Y" service, the procurement of the necessary personnel had been an obstinate problem all the while.* The limited number of personnel assigned were not proficient in the Chinese language. Further, they were being used in 25x3 processing at the 1st RSM. Consequently, when General Everest stated the urgent need for such a service in Korea, the 6004th AISS procured 12 25x3

P.L. 86-36
EO 3.3b(3)

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- ⁷⁵/1. TWX, 1st RSM to CG, USAFSS, Cite: TS 177, 13 Oct 1951. s.d. 120.
2. TWX, 1st RSM to CG, USAFSS, Cite: TS 389, 30 Oct 1951. s.d. 121.

* See Chinese Air Problem, this Chapter.

~~TOP SECRET EIDER~~

74

~~TOP SECRET EIDER~~

who were to be funded by USAFSS through FEAF.* These persons included a former General 25x3 who was selected as the supervisor of the group or team. The Team was generally composed of analysts who had acquired a competency in the Chinese language through association with the Chinese people.

P.L. 86-36
EO 3.3b(3)

These persons and the equipment, supplied by the 1st RSM, were airlifted from Johnson to K-14 (Kimpo) on 3 August 1951. This Team established limited operations at Headquarters, 10th AAA. However, high noise level factors forced relocation to a site near Team I, where Team II began operations with two receivers and one recorder. Team II began monitoring the HF band for air/air, air/ground and ground/air Chinese Voice.⁷⁶ However, the proximity of Team II to Team I** was deemed a serious security risk and Team II

76. The existence of an unidentified Chinese Air net was discovered by the 1st RSM on 23 Aug from analysis of Chinese Mandarin Voice traffic intercepted by Detachment 13. The identification was based on the following traffic: "We are now flying over the Yalu River." "All aircraft have not come back yet." "Show-down Report in detail after investigation." (TWX, 1st RSM to CG, USAFSS, Cite: TS 687, 23 Aug 1951). s.d. 122.

* In April 1951, USAFSS instructed the 1st RSM to augment the voice effort at Detachment 13 with personnel proficient in the Chinese language. Hence, the RSM actually caused the procurement action referenced.

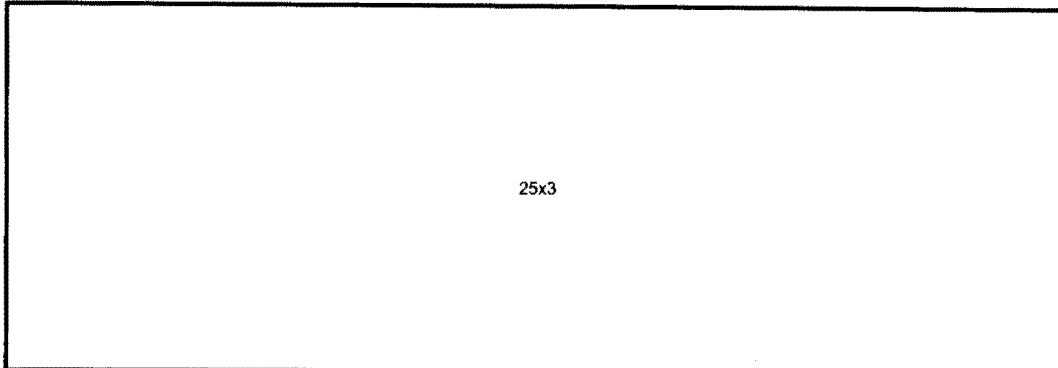
** Team II was never collocated (in the same building) with other COMINT units.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

139

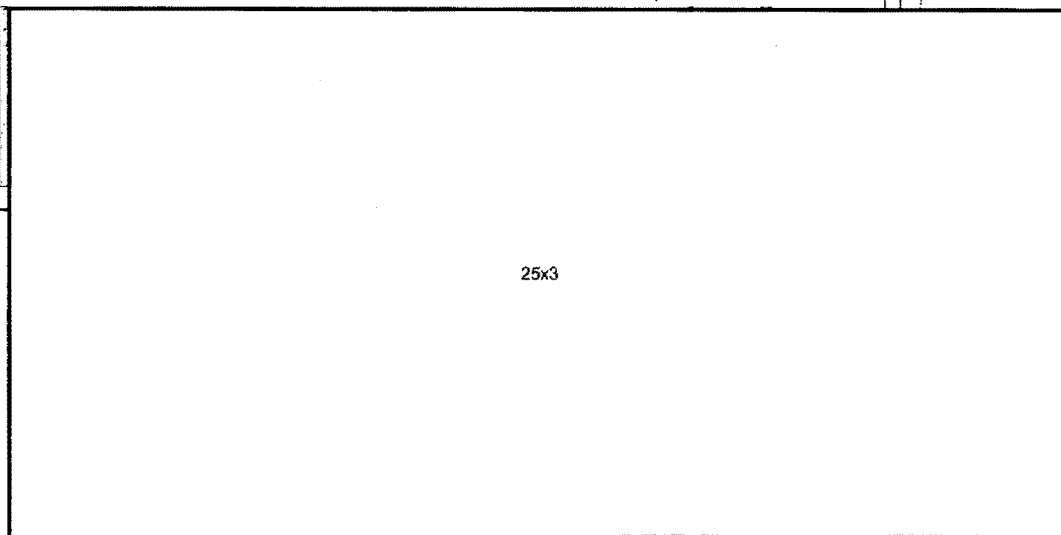
was again relocated on 21 August at Chosen Christian University,
near Seoul.⁷⁷



EO 3.3b(3)
P.L. 86-36

the search for new personnel to continue Team II activity. At that time, it was decided that another search would be made for eligible Korean personnel who were fluent in Chinese, Korean and English. Also, General Everest requested General Ridgeway to reverse his decision. The decision was reversed. Hence, on 10 September FEAF directed the RSM to resume the operations in the following message:⁷⁸

77.



78. TWX: USAFSSLO, FEAF to 1st RSM, Cite: MH 803, 10 Sept 1951. s.d. 123.

~~TOP SECRET EIDER~~

75

140

~~TOP SECRET EIDER~~

U.S. personnel and authorized to receive tech info, the analysis and translations with codeword classification; b. Preclusion from tech COMINT data, the analysis and translations originated by U.S. intercept agencies; c. Elementary cryptanalysis only in regard to tactical air radio t/c; d. Interception and translation of clear-text voice and clear-text Morse only, except for item b, above; e. Passing of responsible U.S. personnel to insure security of project and of [25x3] employees.

The [25x3] were returned to Korea on 18 September and operations were resumed immediately.⁷⁹ This Team continued to monitor Chinese air voice and supply written translations to Detachment 13 for the Group until the Team was phased out on 24 May 1952 and replaced by Yale trained USAFSS personnel. However, this Team never transmitted information to the TADC or Team I for the following reasons:

P.L. 86-36
EO 3.3b(3)

1. It was unable to translate Chinese into English rapidly enough to permit the information to be used instantly. In many cases, the Team would translate from Chinese [25x3] to English.

2. The Chinese Air Voice GCI nets were neither sufficiently developed nor sufficiently active to warrant the simultaneous transmission of the intercept to TADC.

79. By 30 September 1951, the Team had aided in locating a practice Chinese GCI net in Korea and had provided evidence that Chinese pilots were training for combat. (TWX, 1st RSM to CG, USAFSS, Cite: HM 433, 30 Sept 1951). s.d. 126. Further, the traffic from Team II, intercepted 26 September, proved conclusively that the Chinese were using A/G and G/A on frequencies from 4500 to 5500 KC for operational control. (TWX, Det 13, 1st RSM, to 1st RSM, Cite: CS 834, 27 Sept 1951). s.d. 127.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

141

Development of Team III. In the meantime, the decision to withdraw the members of Team II from Korea had caused another concerted search for Korean nationals, competent Chinese, Russian and English linguists. On 26 August 1951, the Director of Intelligence, 5th Air Force, who had served a tour of duty in Korea and was acquainted with several qualified Koreans, recommended a leader for such a Team. This Korean was currently serving as an interpreter-translator with the First Marine Division. He was evacuated from the Punch Bowl area by helicopter on 2 September by the LNO (USAFSS) and flown to Pusan with instructions to obtain 10 qualified Koreans who could understand Korean, Chinese (Mandarin), and English. Security clearances were initiated for the 10 individuals and processed through the Korean Police, OSI, D/I 5th Air Force, and D/I FEAF. During October, the NCOIC of the team arrived at Seoul with the equipment (four receivers and two recorders) and operational facilities were installed in a separate building near Team II at Chosen Christian University. The processing of clearances prevented Team III from becoming operational until November. A number of the Korean linguists were also qualified in Korean, Chinese, Russian, English and other languages, which enabled them to monitor all the foreign voice communications and present a translation in English to Americans in charge of the unit. These translations were invaluable in proving the collocation and tie-in of the entire early warning and CCI control

~~TOP SECRET EIDER~~

76

~~TOP SECRET EIDER~~

system within North Korea and extending into Manchuria.*

Exploitation Capability Inaugurated. Aside from developing a small TACOMINT collection and production capability during January-October 1951, the RSM also implemented a better dissemination and exploitation capability in the Far East and particularly Korea. As previously stated,** when Detachment 13 was established, its only direct communications link with Johnson (1st RSM) was an SCR 399 CW link via Ashiya. This system was too slow for operational messages. Furthermore, the 5th Air Force did not have an authorized SSO who could receive and store COMINT material for exploitation by 5th Air Force. During late 1950 and early 1951, the A-2 personnel at Headquarters, 5th Air Force, made frequent trips to Detachment 13 to coordinate requirements and collect intelligence products. In addition, Detachment 13 also couriered several COMINT items to the A-2, 5th Air Force via jeep and "shot-gun" guard.⁸⁰

However, on 15 April 1951, General Banfill authorized the establishment of an SSO in Headquarters, 5th Air Force, which meant COMINT material could be received and stored. This did not provide for timely exploitation of the COMINT products, because the authorization did not provide for the immediate installment of necessary crypto

80. Historical Data Report, 1st RSM, Dec 1950.

* Information furnished by Major Lewis D. Nixon, who was sent to Korea as the Senior USAFSS officer and USAFSSIO at Hq, 5th Air Force.

** See Dissemination and Exploitation Problems, Chapter II, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

143

facilities.⁸¹ Nevertheless, these facilities were soon forthcoming although it took a potentially dangerous incident to prompt the action.

On 7 May 1951, the 1st RSM called a "Red Alert", because it appeared, from RDF bearings, that several enemy bombers were heading into Korea.* The alert plan was immediately implemented and a warning message to 5th Air Force was placed in existing channels. This flash precedence message required five hours to arrive at its destination. Consequently, FEAF authorized the 1st RSM to establish a direct communications link between Johnson (RSM) and Taegu (Detachment 13) to handle such situations on a timely basis. Therefore, a new AN/GRC-26 and the necessary communications center equipment and personnel were flown to Korea on 28 May 1951. By that time, the project officer and Detachment Commander had arranged for a suitable site for the transmitter,** and the Korean terminal was placed in operation 29 May. It was deemed reliable by 1 June 1951.⁸²

In addition, during May, the SSO at Headquarters, 5th Air Force, was accredited. His crypto facilities were installed in June.

81. TWX, TSM-22, 15 Apr 1951.

82. Monthly Status Report, 1st RSM, 15 Jun 1951.

* This proved to be a miscalculation caused by poor RDF plotting and evaluation.

** When the project officer arrived in Korea, he found that the frequencies issued by FEAF could not be used and the transmitter could not be operated within 10 miles of Taegu. Hence, the officer located an alternate site and 5th Air Force laid the necessary cable to the site from Detachment 13.

~~TOP SECRET EIDER~~

77

DOCID: 3737095

114

~~TOP SECRET EIDER~~

Concurrently, a USAFSS Liaison Officer* began operations in conjunction with the SRS, FEAF, and USAFSS alerted another Liaison Officer for duty in Headquarters, 5th Air Force. This latter officer arrived in Korea early in August 1951 and assumed control of all USAFSS units in Korea. He was immediately placed on the distribution list (USAFSS) for all COMINT items concerning the air picture.⁸³ Thus, by late August 1951, USAFSS had installed adequate communications (COMINT) facilities in the theater and had established a Liaison Officer (COMINT) exploitation facility in each of the major air headquarters. Moreover, during August, the RSM initiated a special COMINT report designed for the Liaison Officer in that theater, and both officers began regular COMINT briefings for the Command.⁸⁴ In turn, both officers began supplying the RSM and Detachment 13 with valuable collateral aids and specific air requirements.⁸⁵

The Kaesong Conference. In addition to crystallizing and establishing a tactical COMINT service in Korea for the Air Forces, the early USAFSS effort in Korea contributed another significant service to the Korean campaign. This contribution concerned the Kaesong conference. It was responsible also for bringing into focus the rapidly developing control and processing issues of that era, as well as

83. TWX, 1st RSM to CG, USAFSS, Cite: TS 547, 6 Aug 1951. s.d. 125.

84. TWX, 1st RSM to CG, USAFSS, Cite: TS 652, 18 Aug 1951. s.d. 129.

85. TWX, 1st RSM to CG, USAFSS, Cite: TS 711, 25 Aug 1951. s.d. 130.

* Although the RSM had an officer at FEAF throughout 1950 and early 1951, this officer was actually operating under a FEAF charter which was more of an SRS activity. The USAFSS Liaison Officer operated under an AFSS Charter. Hence, he was more responsive to AFSS than was the SRS

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

145

emphasizing the need for a clear delineation of functions in the collection, production and dissemination of COMINT by the U. S. Forces.

During the last week of June 1951, the Cho Team of Detachment 13 intercepted and broke the following North Korean message: "Nam IL when you get this message come to me at once. (Signed) Kim IL Sung." Since this immediately followed the peace feeler from the Soviets, the 1st RSM interpreted it as a possible forerunner to a conference. After a conference was decided on, the RSM alerted Detachment 13 to guide Cho's Team to this potentially valuable source of information. When Kaesong was selected as the site for the conference, it was decided to monitor the North Korean end with existing Detachment facilities, i.e., Cho's CW effort at Detachment 13. Although the Communists used various codes during the early days of the conference, the first one employed was an old code with a new additive. Cho guessed this and was able to break into the Kaesong system so rapidly that some cryptanalytic experts categorically stated it was impossible.

Meanwhile, Detachment 13 continued to intercept, decrypt and pass the material to Admiral Joy daily, via EUSAK. This continued for eight days before the RSM became aware of the fact that ASAPAC had not broken into the System. This information arrived from AFSA via Headquarters, USAFSS, as a request to Detachment 13 to forward a copy of the Kaesong traffic to ASAPAC. The Detachment replied it had only one copy (written by pencil in Korean) and could not

~~TOP SECRET EIDER~~

78

146

~~TOP SECRET EIDER~~

duplicate it. Hence, AFSA requested that the Detachment forward the code book used to break the system. This exchange of messages touched off a flurry of communications, primarily denials by the Detachment that it had a code book, which resulted in a full-scale investigation on the part of AFSA, ASA and USAFSS. The investigation not only concerned the code in question, it snowballed into a technique employed (security practices) and exchange bottleneck (cooperation) criterion of the Detachment operations.*

By 27 July 1951 the misunderstandings had arrived at a status wherein the Chief, ASA had instructed the Chief, ASAPAC, to contact Detachment 13 and obtain information regarding the methods, techniques, use of collateral, etc., used to decrypt the conference traffic. At the same time, ASA instructed ASAPAC to also obtain information regarding exchange of recoveries and translations, and informed ASAPAC that this was a "priority, repeat priority project concurred in by both AFSA and USAFSS".⁸⁶

As a result of the above message, ASAPAC and the 1st RSM reviewed the situation on 1 August and the RSM forwarded the following report to Detachment 13:⁸⁷

Conference this date with ASAPAC resulted in following commitment: a. Supply 60 Sig with copy all air and RKO tlc

86. TWX, Chief, ASA to Chief, ASAPAC, Cite: ARL 35173, 27 Jul 1951. s.d. 131.

87. TWX, 1st RSM to Det 13, 1st RSM, Cite: TS 519, 1 Aug 1951. s.d. 132.

* For an extensive study of this incident see Memorandum from Brigadier General Roy H. Lynn to Major General C. P. Cabell, Subj: AFSS Handling of the Kaesong Truce Conference Decrypts, dated 8 Aug 1951, and numerous TWX's appended thereto. (TSC #54-1608).

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

147

on daily basis as you have done in past. b. Furnish list of all 25x3 and callsigns validities daily. In return, ASAPAC will exchange tfc and call sign validities. ASAPAC requests that you furnish call sign validities you receive from 60 Sig to Capt Thresher (SSO, 5th AF). Understand you have not been using copy of air tfc received from 60 Sig. Until receipt of ans to wire sent AFSS, recommend you continue present practice. If AFSS wires OK on present method of operations, you may feel free to use any info or material received. Will inform you immediately on receipt of wire referenced above. Principal consideration in meantime is to be sure that all material continues to filter into AFSA channels. At present time, only feasible way is thru comm facilities of 60 Sig. . . .

Five days later Headquarters AFSS, prompted by AFSA, queried the 1st RSM about the procedures employed for distributing the conference traffic and decrypts. The message stated, ". . . it is imperative that 13 raw material and decrypts, unedited, be sent to AFSA electrically.⁸⁸ Also, USAFSS stated AFSA had recently indicated it was not receiving the raw traffic and decrypts.

The following day, the 1st RSM informed Headquarters, USAFSS, that:⁸⁹

. . . Nearly all recent Kaesong msgs have been intercepted in clear text (mixture of Korean and Chinese characters). These are being translated by Detachment 13 and copy of English translation plus Korean raw tfc given to 8th Army SSO. Any portion which is not clear is underlined and Capt Kim (60 Sig) comes down to try to make better translation. This arrangement was made between Det 13, ASAPAC and 8th Army SSO because Capt Kim stated 60 Sig would not be able to translate plain text msgs as well as Det 13 due to mixture Korean and Chinese Characters. (Native Koreans understand Chinese characters). One copy of all raw tfc and

88. TWX, CG USAFSS to CO, 1st RSM, Cite: CDC SZ 783, 6 Aug 1951. s.d. 133.

89. TWX, 1st RSM to CG, USAFSS, Cite: TS 558, 7 Aug 1951. s.d. 134.

~~TOP SECRET EIDER~~

79

148

~~TOP SECRET EIDER~~

code recoveries (ASAPAC desires recoveries rather than decrypts) are being picked up daily by 60 Sig courier from Det 13.

For your info present dissemination of 8 copies of translations as follows: one copy to 8th Army SSO, one copy to GHQ, one copy to FEAF, one copy to 5th AF, one copy to G-2, 8th Army, one copy to 1st RSM, one copy to AFSS and one copy for Det 13 file. . . . Det 13 has been including AFSA on all decrypts of interest re: Kaesong conference. The obstacle preventing plain text raw traffic from being sent electrically is the impracticability of sending Korean Characters in Morse. . . . copy of raw traffic is being sent AFSA via courier. The same material is being copied by Army ROK Group. Query, has pressure been as strong on 60 Sig to obtain material as it has been on Det 13 to provide material.

Following msg, dated 3 Aug received from Det 13. "Ref conversation with EUSAK SSO this date. Det 13 continues to furnish most complete and accurate coverage of Kaesong conference net. Msgs still being flown to Munsan--DNI daily. . . It is to be remembered msg's are spoken in English, translated by Koreans, transmitted in CW in Korean, after garble on QRM are again translated into English. It amounts to a guess of one Korean's opinion of another Korean's knowledge of English. Per request from EUSAK we are furnishing them with one copy of subj msg in Korean for Korean-speaking American to check accuracy. . . ."

OIC Det 13 reports that Korean in Det 13 are becoming increasingly concerned and dissatisfied with additional commitments for extra copies of raw traffic, recoveries, translations (Korean and English), etc. Point AFSA and AFSS might well consider is that no formal control is possible over ROK personnel, therefore, extreme dissatisfaction might result in loss of entire effort.*

To this lengthy message, General Lynn replied as follows:⁹⁰

. . . It is my personal opinion that you and your people have done all that is possible to meet your obligations in this matter. . . I am personally taking this matter to Washington.

90. TWX, CG, USAFSS to CO, 1st RSM, Cite: ODC 93787, 8 Aug 1951. s.d. 135.

* In this respect, Koreans in Det 13 were getting less pay than house boys could command and Capt Cho was ill. The 1st RSM and Hq AFSS personnel collected and donated several hundred dollars to these people to compensate for their meager fair and as expression of gratitude for outstanding service.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

149

Moreover, on 14 August 1951, ASAPAC forwarded the following message to the Chief, ASA:⁹¹

In compliance with your ARL 35175 /message instructing ASAPAC to investigate the situation at Det 13/ a visit was made by Capts Kim and Hart to Det 13. Capt Cho, Rpt Cho, the ROK, Cryptanalyst, was questioned as to the techniques used. By his own admission these techniques were of an elementary nature, solutions requiring about 10 messages and searching for punctuation marks and using probable word method. ROK at Det 13 have no techniques for

P.L. 86-36
EO 3.3b(3)

Frequency distribution only type of statistical analysis approach used and that only on substitution ciphers. No use is made of collateral information. Only advantage held by ROK at Det 13 is their preponderance of Korean speaking personnel. Tfc analysis is not performed by ROK personnel but by Americans in separate section. Translations and raw tfc being received and forwarded by 60 Sig Sv Co.

However, by this point the Detachment operations had become an issue. Therefore, on the 14th of August, representatives from AFSA and Headquarters USAFSS proceeded to the Far East to make an on-the-spot survey.⁹² Further, on 23 August, the joint committee completely absolved the RSM and Detachment 13 in the following message to the Commanding General, USAFSS:⁹³

. . . There was no code book and success of Det 13 was sole product of Cho and associates. Unhappiness of AFSA on non-receipt of raw material was caused by SSO, 8th Army and 60 Sig not understanding instructions from AFSA. Alleged insecurity of Det 13 in utilizing Korean Nationals was without fact. . . .

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91. Telecon, Hq, ASAPAC to Hq, ASA, DTG 140252Z Aug 1951. s.d. 136.
92. TWX, CG, USAFSS to CO, 1st RSM, Cite: ODC 93912, 14 Aug 1951. s.d. 137.
93. TWX, USAFSSLO, FEAF to CG, USAFSS, Cite: MH 744, 23 Aug 1951. s.d. 138.

~~TOP SECRET EIDER~~

30

~~TOP SECRET EIDER~~

The Aftermath of the Conference Episode: A similar series of events, beginning late in September 1951, also accentuated the issues crystallized by the Kaesong Conference incident. On 21 September, AFSA indicated to USAFSS that some concern was present at AHS because the 60th Signal Service Company was not included as an addressee on Detachment 13 messages. Therefore, USAFSS instructed Detachment 13 to reaffirm that the 60th was receiving all decrypts from the Detachment, although it was not listed as an addressee.⁹⁴ To this message, the RSM replied:⁹⁵

Burden of proof still rests with 1st RSM to assure full cooperation with 60 Sig. Since this is continual embarrassment to us, effort now made to clear up problem once and for all. Each and every day, copy of all decrypted messages are picked up from Det 13 by 60 Sig. Courier. Also. . . is furnished 1 copy of all intercepted t/c, including all raw t/c whether decrypted or not, clear-text msgs plus every word of chatter intercepted. 606 has repeatedly been requested to let us know anytime we are reading something they are not so that we can use their Korean speaking C-A personnel to obtain values and detailed instructions from our Koreans on methods used to arrive at recoveries. . . . Captain Hart (Operations Officer for the 501 Group) has stated that they are completely satisfied with our cooperation. . . . Because of continued pressure on our boys, they are getting ideas that every time they come up with something good, they catch it. . . our only reason for continual scooping them is, in our opinion, due to more effective handling of material. Request this matter be cleared once and for all at all levels.

94. TWX, CG, USAFSS to CO, 1st RSM, Cite: OAD-SZ 668, 21 Sept 1951. s.d. 139.

95. TWX, 1st RSM to CG, USAFSS, Cite: TS 998, 28 Sept 1951. s.d. 140.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

151

Concurrently, AFSA had instructed ASAPAC to obtain daily case recoveries made at Detachment 13 and recommended the following procedure for adoption: Detachment 13 prepare a daily list of [25x3]

P.L. 86-36
EO 3.3b(3)

[25x3] and pass them to the 60th Signal, which would collate these with its own and forward all the [25x3] by teletype to ASAPAC and ASA Washington.⁹⁶ Consequently, on 29 September, the 1st RSM again assured AFSA that every effort was being made to provide the 60th with results of all the RSM successes and enumerated the detailed procedures already in effect to accomplish the essential coordination.⁹⁷ Furthermore, the 501st Group substantiated the RSM report on existing relations in a wire to ASAPAC 30 September. At the same time, the Army unit requested authority to handle the cooperation problem locally.⁹⁸ This request was approved by ASAPAC on 2 October 1951.⁹⁹

Nevertheless, on 4 October, AFSA requested a copy of all raw traffic and translations produced by Team II.¹⁰⁰ In addition, on 8 October AFSA sent the following wire to USAFSS:¹⁰¹

Following concerns [25x3] only. Would be of great assistance to AFSA if possible implement at Det 13: (1) daily teletype

P.L. 86-36
EO 3.3b(3)

96. TWX, DIRAFSA to ASAPAC, Cite: ARL 44726, 22 Sept 1951. s.d. 141.

97. TWX, 1st RSM to DIRAFSA, Cite: TS 014, 29 Sept 1951. s.d. 142.

98. TWX, 1st RSM to CG, USAFSS, Cite: TS 054, 2 Oct 1951. s.d. 143.

99. Ibid.

100. TWX, CG, USAFSS to CO, 1st RSM, Cite: OCD-1-SZ 920, 4 Oct 1951. s.d. 144.

101. TWX, DIRAFSA to Hq, USAFSS, Cite: 47331, 8 Oct 1951. s.d. 145.
HQ USAFSS TSC No 15-09525

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~~TOP SECRET EIDER~~ Page 31 of 192 Pages

152

~~TOP SECRET EIDER~~

summary of [25x3] to include following: call-signs from, call-signs to, freqs, number of msgs and type of the tlc passed. . . (2) teletype daily in [25x3] idents to include follwg: call-signs, idents, location, validity, basis of idents. . . (3) include case notations on all intercept traffic.

P.L. 86-36
EO 3.3b(3)

Four days after the above request, AFSA also advanced its decision on the local exchange procedures, recommended late in September by ASAPAC and the 1st RSM. At that time AFSA stated: ¹⁰²

Procedures recommended by RSM and ASAPAC does not, however, seem adequate. . . . Does following seem feasible. Query. Det 13 provide 501 Com Recon Grp with list of [25x3] 501 Com Recon Grp bag daily list to ASAPAC. ASAPAC to convert and collate recoveries against data available there and forward unique recoveries to ASA Wash by priority wire. Prefer this arrangement. . . since it places exchange . . . in definite channel and regular basis.

At this point, the RSM wired USAFSS as follows: ¹⁰³

Re AFSA ARL 48171. Extensive and careful consideration given this matter. ⁷ However, reluctant to advise AFSA of the bare facts since would appear we are trying to avoid cooperation. Therefore, we are frankly stating the facts to you. Request you ans AFSA in any way you see fit and advise us.

. . . we convinced that considerable danger ⁷ in further interfering with Koreans. We have not yet recovered from adverse effects of Kaesong Conference investigations. . . while willing to comply, must observe caution since Koreans are free to resign or request transfer. . . please understand ROK cryptanalysts are paid less than standard wage for Korean house boy. . . This wage problem is a source of trouble and AFSA reqmts are like an added sore. . . Finally. . . we have no

102. TWX, DIRAFSA to Chief, ASAPAC, Cite: ARL 48171, 12 Oct 1951. s.d. 146.

103. TWX, 1st RSM to CG, USAFSS, Cite: TS 193, 15 Oct 1951. s.d. 147.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

153

qualified personnel to examine our Koreans work and guarantee that all recoveries are being passed. The jealousy between our Koreans and ASAPAC Koreans absolutely precludes having one of their men do the work. . . .

Three days later the problem was discussed by AFSA and USAFSS and it was agreed that it was impossible to obtain recoveries from Cho as he produced them.¹⁰⁴ Further, AFSA suggested that Cho be assured by USAFSS that no portion of his "trade secrets" would be given to Kim directly or indirectly.¹⁰⁵ Consequently, on 19 October, USAFSS instructed the RSM to drop the matter for once and all.¹⁰⁶

Headquarters, USAFSS, Support: Aside from the major effort devoted by Headquarters USAFSS to resolving the field control and processing problem of that period, the Headquarters also contributed to the development and modification of the analysis and intelligence functions performed by the units. The major analysis effort at Headquarters USAFSS, however, was limited to the Russian air picture throughout 1951, although it did participate in the development of the Far East COMINT capability, e.g., developed certain Chinese and Soviet nets appearing in Korea and supplied some technical data to the 1st RSM. This activity was generally conducted with two sections, viz., development and Traffic Identification and PVO.

104. TWX, CG, USAFSS to DIRAFSA, Cite: ODC SZ 174, 18 Oct 1951. s.d. 148.

105. TWX, (Holtwick, AFSA, to Pulling, AFSS) AFSA to CG, USAFSS, Cite ARL 49524, 18 Oct 1951. s.d. 149.

106. TWX, CG, USAFSS to CO, 1st RSM, Cite: ODC 95502, 19 Oct 1951. s.d. 150.

MDR USAFSS 751

~~TOP SECRET EIDER~~

32

154

~~TOP SECRET EIDER~~

By January 1951, the Traffic Identification and Development Unit at Headquarters, USAFSS, had approximately 11 Chinese Communist nets under study. It continued to scan traffic and develop the nets until May 1951. By that date, the Analysis Division, Headquarters, USAFSS, had activated a Chinese Fusion Unit, based on the AFSA method of exploitation. This unit was established, officially, on 26 April, to exploit Manual Morse 25x3 and to train personnel (OJT) in all phases of the problem

P.L. 86-36
EO 3.3b(3)

(decrypts; translation, T/A and Technical Research), except voice. It was scheduled to be transferred to the Far East (1st RSM) in May 1951. However, personnel procurement and training problems retarded the development and deployment of the unit. Nevertheless, the Fusion Party contributed valuable assistance by reconstructing several GCA nets, establishing the fact that call signs and frequency rotas changed simultaneously approximately every seven months and breaking some of the traffic from the 25x3 under study.¹⁰⁷ This party was augmented and shipped to the Far East in September 1951 in line with the growing concept of field exploitation.¹⁰⁸

As for the PVO support to Far East operations, its major contribution prior to August 1951 concerned technical data on Chinese grid usage and Russian Communications procedures. In this respect, the

107. Historical Data Report, Dir of Operations, Hq USAFSS, Apr-Jun 1951. SAG 1428.

108. Historical Data Report, DC/S Operations, Hq USAFSS, Jun-Sept 1951. EX 1952.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

155

PVO unit had charted 50 known nets in the Far East by late March 1951. This was a reflection of more early warning activity in that area and better RSM coverage, as well as increased Headquarters activity. One of the outstanding accomplishments of the Section was performed during the early months of 1951. During April analysts discovered the message

P.L. 86-36
EO 3.3b(3)

25x3

This assumption was substantiated by the PVO unit early in July 1951 as one result of an ECM mission flown on 21 June 1951. Traffic

25x3

times corresponded closely to the actual positions of the aircraft. ¹¹⁰

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109. Historical Data Report, Dir of Operations, Hq USAFSS, Jan-Mar 1951. SAG 1427.
110. Historical Data Report, DCS/Operations, Hq USAFSS, Apr-Jun 1951. SAG 1428.

~~TOP SECRET EIDER~~

83

~~TOP SECRET EIDER~~

In relation to exploitation of the technical findings of the two Headquarters units, the technical support activity of Headquarters USAFSS was consolidated under a Field Liaison Unit in the Analysis Division during March 1951.¹¹¹ However, the timeliness of this service to field units was negated by the elaborate coordination sometimes required to fulfill any technical requirement from the field. Very often a request from the field had to pass through eight Analysis Sections for accurate fulfillment. Hence, in April 1951, the Field Liaison unit established its own suspense system and messenger service to expedite the technical service to the field. By the end of August, the system had increased the timeliness considerably. In addition, the TEXTA service unit had been consolidated with the Field Liaison unit. Therefore, TEXTA service and intercept changes had advanced from a subordinate to a predominant position in Headquarters support of field activity.¹¹²

From the standpoint of intelligence production and dissemination practices, Headquarters, USAFSS, recorded several changes in techniques during the first part of 1951. By late January, Headquarters, USAFSS, had established a 24-hour immediate reporting unit

111. Historical Data Report, DCS/Operations, Hq USAFSS, Jul-Sept 1951. EX 1952.

112. Ibid.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

157

in the Intelligence Dissemination Division. This unit acted as the Alert Duty capability in that it consolidated field intelligence items and extracted various items from INTSUMS and forwarded them to Zone of Interior consumers. Before the end of July 1951, the Dissemination Division had become, in practice, the Headquarters Liaison Officer Training and Operations desk.¹¹³

During the same period, the Dissemination Division was reorganized and began compiling Special Intelligence Reports in answer to specific requirements placed on USAFSS. This unit also began compiling regular Intelligence Reports based on field summaries and supplemented by Analysis products of Headquarters, USAFSS. Moreover, this unit, during May 1951, initiated the first attempt to collect and consolidate Air Force intelligence requirements as related to the current or potential Air Force COMINT service.¹¹⁴ Finally, the Dissemination Division assumed the consolidated responsibility for collecting and disseminating collateral material to all USAFSS units engaged in the collection, production, or exploitation of COMINT. Before the end of July 1951, this assistance was of service to the RSM as well as to the rapidly growing chain of USAFSS Liaison Officers.¹¹⁵

113. Historical Data Report, DCS/Operations, Hq USAFSS, Apr-Jun 1951. SAG 1428.

114. Ibid.

115. Ibid.

84

~~TOP SECRET EIDER~~

DOCID: 3737095

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

159

CHAPTER IV

Assumption of Command by Group to Consoli-
dation of the CHICOM Air Effort

The 6920th Security Group officially assumed command of all USAFSS facilities in the Far East on 5 November 1951. It was given full responsibility for [REDACTED]

P.L. 86-36
EO 3.3b(3)

[REDACTED] problem on 10 March 1952. Although this period covered only four months and five days, some of the outstanding functional concepts of COMINT collection and production were officially recognized and partially implemented during the time. From the standpoint of an Air Force and a U. S. COMINT capability, these advancements toward a better US COMINT service were the culminative results of trends which had appeared early in the development of a new U. S. COMINT effort and had been modified by practices and circumstances. In other words, the assumption of operational command of USAFSS facilities by the Group was an official recognition of a true tactical-type concept of operations. The consolidation of the ChiCom Air effort under Group control was an official recognition of a functional division of responsibilities in the U. S. COMINT structure. Probably one of the most significant trends visible by the end of the period was practical, everyday give-and-take cooperation, and it appears that this was grudgingly given at times.

~~TOP SECRET EIDER~~

85

DOCID: 3737095

160

~~TOP SECRET EIDER~~

RISE OF FUNCTIONAL OPERATIONAL PRACTICES

Although the designation of an USAFSS Group in the Far East exerted a great deal of influence on the rapid recognition of tactical-type control and production requirements, the course pursued in obtaining such autonomy of action had been well-charted by the 1st RSM. Furthermore, the early influence of the Group generally reflected the RSM effort. This applied to the development and deployment of USAFSS capabilities as well as the control and operation of the existing USAFSS facilities and services. Moreover, this statement was significantly applicable to the establishment of functional responsibilities in relation to the fulfillment of the overall theater COMINT requirements, viz; Chinese Air and Weather, tactical and strategic intelligence support, and developmental or experimental activities. Actually, the Group Commander and Operations Officer arrived in the Far East in September 1951,¹ borrowed some personnel and phased into the Far East operations as currently conducted.

Climax of 1st RSM Control and Operations. Briefly, the USAFSS capability in the Far East immediately prior to November 1951 consisted of the 1st and 15th RSM's. This latter unit began operations in August 1951 as Detachment 12 (Ashiya) of the 1st RSM. Subsequently, the 1st RSM redeployed Detachment 12 to Wakkanai.² The station at Ashiya was

1. TWX, Hq, USAFSS to CO, 1st RSM, Cite: PDC 94348, 31 Aug 1951. s.d. 151.

2. Hq, 1st RSM, GO No. 19, 7 Aug 1951.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

161

redesignated USA 54 and was placed under administrative control of the 15th RSM. However, the 1st RSM continued to exercise operational control of USA 54 because of the imminence of Group Operations which would exercise operational control over all stations in order to prevent duplication and to make maximum use of the limited capabilities available.³

As for the 1st RSM capability, it consisted of a Headquarters Unit (Johnson AFB) and three designated detachments located at Misawa, Wakkanai and Seoul. In addition, the 1st RSM had two operational teams in Korea and one team organized and one Test Team at Niigata. Aside from the voice effort of Teams I and II (Four voice positions) and two voice positions at Detachment 12, the 1st RSM was operating 37 CW positions, five of which were manned by indigenous personnel of Detachment 13 located at Seoul, Korea. The major portion of this effort was located at Headquarters, 1st RSM, for Detachment 12 had recently been redeployed and development of Detachment 11 (Misawa) was being retarded by inadequate housing facilities.⁴ The 15th RSM was operating 11 CW and one voice position at Ashiya.⁵ As previously stated, the units in Korea were producing tactical and some strategic intelligence. However, Headquarters 1st RSM was doing the overall theater

3. TWX, 1st RSM to CG, USAFSS, Cite: TS 134, 10 Oct 1951. s.d. 152.

4/1. Monthly Status Report, 1st RSM, Oct 1951. TSC 5449Q.

2. TWX, 1st RSM to CG, USAFSS, Cite TS 781, 2 Sep 1951. s.d. 153.

5. Monthly Status Report, 1st RSM, Oct 1951. TSC 5449 Q.

~~TOP SECRET EIDER~~ 36

DOCID: 3737095

162

~~TOP SECRET EIDER~~

reporting and exercising overall control.

Initial Group Control. On 6 November 1951 the Group assumed command of all USAFSS facilities in the Far East. At that time, the Group redesignated the analysis and reporting sections of the 1st RSM as "Group Operations" and placed the activity under the guidance of the Group Operations Officer. The RSM personnel, assigned to processing functions, were attached to the Group for duty. This continued to be the procedure until months later when the Group T/D was increased. In addition, the Group informed all USAFSS stations in the Far East that it was ready to exercise intercept control.⁶ The following day, the Group wired Headquarters, USAFSS, that:⁷

Became operational this date and assumed control of the 1 and 15 RADRONMOs. All personnel assigned processing functions have been attached for duty to Gp opns. . . . All processing responsibilities have been assumed. Gp collection and control section organized and is ready to exercise intercept control over all units Far East. (Separate msg fol outlining present capability). . . . Not presently planned to begin phasing full processing responsibilities fr Hq AFSS, but will continue, for present, central theater processing. . . .

Simultaneously, the Group informed USAFSS that the Group Collection and Control Section was organized and ready to provide intercept missions to squadrons and detachments by case and blocks. The Group further stated it was ready to assume full intercept control

6. TWX, 6920th SG to 1st and 15th RSM, Cite: BD 390, 5 Nov 1951. s.d. 154.

7. TWX, 6920th SG to Hq, USAFSS, Cite: TS-480, 8 Nov 1951. s.d. 155.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

163

responsibilities for that 50 per cent of USAFSS intercept facilities to be controlled by USAFSS under the "Lynn-Canine Agreement." At the same time, the Group suggested that USAFSS continue, for the present, to specify minimum essential cases and blocks of vital interest reflecting requirements of Zone of Interior Commander.⁸ Headquarters, USAFSS acknowledged receipt of the information on 9 November but did not refer to control matters.

Therefore, on 12 November, the Group Operations Officer, in a wire to the Group Commander, who was attending a Commanders' Conference at Headquarters, USAFSS, stated:⁹

. . . Detailed Nov mission assignments recd. . . 7 Nov for Sta 38 and . . . 8 Nov for Sta 54. Both generally satisfactory compared with previous assignments, but does not recognize existence of Gp or its control functions. . . Recommend you discuss immediate implementation Gp control over AFSS 50 per cent, with Hq AFSS limited to forwarding Zone of Interior command intel requirements (not cases) and recommending coverage on minimum cases desired for Brooks Field development and tech backup. Emphasize the immediate implementation of Gp control with resulting flexibility and immediate responsiveness stem from critical intel situation outlined below for your info. Chinese Air Force deployment into critical border area virtually completed with 15 out of total 18 Chinese Air Div now in or moving into that area. Continued presence Russian Ftr Regts in combat and in reserve in Manchuria now aggravated by appearance European based Long Range Air Army aircraft left in Manchuria. At opns officer conference, people gave impression we too concerned with Chinese at expense Russian quote Big Picture unquote but they seem unaware extent Chinese-Russian intermixture and extent Russian air participation and direct backup of Korean War.

8. TWX, 6920th SG to CG, USAFSS, Cite:TS 485, 8 Nov 1951. s.d. 156.

9. TWX, 6920th SG to CG, USAFSS, Cite:TS 556, 12 Nov 1951. s.d. 157.

* USAFSS held an Operations Officer Conference in October 1951 and a Commanders' Conference in November 1951.

~~TOP SECRET EIDER~~

87

161

~~TOP SECRET EIDER~~

As a result of this pressure from the Group and the provisions of the newly signed "Lynn-Canine Agreement," the following message was dispatched to the Far East Group, information to AFSA, on 14 November:¹⁰

. . . Agreement has been reached between AFSA and USAFSS that all intercept facilities, except those manned by indigenous personnel, will be divided equally between AFSA and USAFSS for accounting purposes. It was further agreed that no assignment would be placed against Det Charlie positions by either party. As more Morse positions become available at your organization, all USAFSS manned positions used directly for theater support will be charged to USAFSS 50 per cent. . . Desire you forward by routine wire number of positions manned by indigenous personnel. Continue to keep this Hqs advised, by routine wire, of any significant changes. . . .

Two days later, in a reprimand to the Group for changing an AFSA case assignment in an emergency, USAFSS indicated the Group had the authority to make changes on any portion of the USAFSS controlled intercept positions, thus recognizing the tactical responsibilities of field commanders.¹¹

Furthermore, additional freedom of action had been obtained by the Group by December 1951 and another Group objection to continued rigid control had been recognized by Headquarters, USAFSS. This latter problem concerned the existing teletype forwarding agreement between AFSA and USAFSS, which did not recognize the Group concept of operations. As a result, the 15th RSM was immediately faced with a problem of assigning

10. TWX, CG, USAFSS to CO, 1st RSM, Cite: SZ 717, 14 Nov 1951. s.d. 158.

11. TWX, CG, USAFSS to CO, 1st RSM, Cite: ODC SZ 761, 16 Nov 1951. s.d. 159.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

165

teletype forwarding priorities to various categories of traffic. Therefore, the RSM requested relief on 20 November 1951, as follows:¹²

Ref priority fwding list received this Hqs. . . . Because of urgent necessity that we get [25x3] to 6920 Gp on timely basis, compliance with UR list very difficult. Shortage Comm equip this Sta main factor. Informed by Group that [25x3]

P.L. 86-36
EO 3.3b(3)

[25x3] [25x3] not being exmited electr as analysis summary being prepared daily this Sta. Reason for making summary this Sta is to relieve some of the TT load on raw traffic not required immed by Gp when summary being prepared this Sta. In view of above, the following fwding list submitted for UR approval. . . . Above priority list is suggested for our X mission to Gp. This would allow us to get vital theater tfc, including perishable WX, to Gp on timely basis although it would delay other tfc.

Consequently, USAFSS pointed out the conflict to AFSA the following day:¹³

AFSA-AFSS teletype forwarding list poses problem with Group concept as follows. . . . Far East Group must process [25x3] and WX tfc on timely basis to meet theater requirements, therefore, 15 RSM must forward this tfc to Group in Top Priorities. Sqdns are unduly pressed to meet these requirements since priority of subj tfc to Group is not in accordance with 2I teletype forwarding instructions. . . . This will be continuing problem, therefore, recommend that an immed as well as long range solution be considered. . . . To solve immed problem: in event of an emergency caused by an unusual development* or pressing theater requirement, Group would be authorized to readjust to priorities to meet situation. . . long range planning solution: Give Group top priorities at each sqdn with balance mutually arranged between AFSA and AFSS.

12. TWX, 15th RSM to CG, USAFSS, Cite: DB 982, 20 Nov 1951. s.d. 160.

13. TWX, CG, USAFSS to DIRAFSA, Cite: OCD-1-SZ 842, 21 Nov 1951. s.d. 161.

* The USAFSS Group in Europe was experiencing the same difficulty in relation to new development in the prime USAFE Theater target, i.e., the 24th Air Army. Also, the European Group was requesting an immediate solution to the problem.

HQS USAFSS TSC No 59-09525

Copy 1 1 Copies

Page 88 of 192 Pages

~~TOP SECRET EIDER~~

DOCID: 3737095

166

~~TOP SECRET EIDER~~

AFSA rejected the proposal on 29 November on the basis that the current teletype priority list represented the minimum operational requirements. That agency did agree to reconsider the list after the diarized traffic began to flow steadily to AFSA.^{14*}

As for the additional freedom gained, AFSA, following a series of incidents wherein both Groups violated certain control directives in order to provide a timely service to the Theater Commanders, advanced its interpretation of the Group Control concept as follows:¹⁵

Assignments will be made by AFSA in Russian TAC Air Cases, as block assignments. Gp Commander will be allowed to transfer** cases within his command, but at no time may he have more or less than the number of pos assigned by AFSA to a particular sta on a specific Russian Tac Air Army block assignment. Freedom allowed Gp Commander in allowing him to transfer cases within his command is only to enable Gp commander to seek out and use the better intercept pos as regards a specific case. . . .***

14. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 57106, 29 Nov 1951. s.d. 162.

15. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 57108, 30 Nov 1951. s.d. 163.

* A US/UK T/A panel agreed in August 1951 to adopt an abbreviated format for various categories of intercept traffic to facilitate exchange of raw material and to alleviate electrical transmissions loads. This program was only partially implemented in the Far East by 30 November 1951.

** In practice, although it gave rise to other control incidents, this AFSA interpretation of the Group concept did allow the Group Commander to alleviate the teletype forwarding problem somewhat. This was accomplished by moving the coverage of a rigid case nearer to adequate communications facilities.

*** This location assignment had been a handicap to proper tactical control since the beginning of the conflict.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

167

Concurrently, the 6920th Group made its strongest bid for tactical control of intercept capabilities and actually formalized the USAFSS Group Control concept.* This was in reply to an USAFSS query as to the capabilities of the Groups and the autonomy desired. It was phrased as follows:¹⁶

Our present intercept control capability consists of being able to make case and block assignments to all positions based on coverage analysis and nearly completed processing of all ttc. Our Comm will support timely control of all facilities and will result in more efficient utilization. Recommend following plan for Group concept of Intercept control (a) Delegate position control of all facilities, including AFSA 50 per cent, to Group: (b) AFSA and AFSS send to Group each month approximate division of facilities by target in type, i.e., Chink PVO 3 positions, Russian Long Range 5 positions, etc; (c) AFSA and AFSS send to Group each month minimum list of cases and type of coverage essential to requirements and reflecting requirements of ZI Commands. This list should include only those cases of unique or vital interest to AFSA, AFSS, or ZI Commands; (d) during month, send running commentary to Group on coverage being effected. Even if AFSA will not buy plan, suggest it be adopted for AFSS 50 per cent.

Although the Group plan for intercept control was presented to AFSA on 10 December by USAFSS, it was rejected on the basis that established communications channels were inadequate for the Group to exercise timely and non-duplicative control.¹⁷ Further, AFSA was adamant in its

16. TWX, 6920th SG to CG, USAFSS, Cite TS 842, 2 Dec 1951. s.d. 164.

17. R&R, OCD to ODC, Subj: TDY Visit to AFSA 10-13 Dec, 17 Dec 1951. s.d. 165.

* In replying to the above message on 6 Dec 1951, USAFSS stated that it was interesting to note that the above concept of Group control was almost identical to the one submitted from the European Group at approximately the same time.

HQS USAFSS T-101 21 DEC 1951

~~TOP SECRET EIDER~~

89

~~TOP SECRET EIDER~~

insistence that the control provisions of the existing Lynn-Canine Agreement prevail.¹⁸ Nevertheless, AFSA did recognize bonafide theater emergency responsibilities.* Moreover, a greater degree of freedom or tactical autonomy was gained by the Group by late March 1952. Part of this freedom resulted from procedures adopted in relation to the ChiCom air problem and the success of those procedures, theater-wise. On the other hand, part of the freedom resulted from further agreements between Air Force and AFSA, designed to delineate reporting responsibilities in a functional manner.

In relation to the reporting agreement, this problem had been discussed by AFSA and USAFSS during the summer and fall of 1951. Thus, concurrently with adoption of the Lynn-Canine Agreement, USAFSS began seeking a resolution to the intelligence reporting issue and conversely the USAFSS processing issue. In consonance with the growing concept that processing should be determined by the time factor, USAFSS prepared a proposed Timely Reporting Agreement and forwarded it to the Director of Intelligence, USAF.¹⁹ Air Force approved the proposed agreement, providing the Z/I or AFSA reporting responsibility to

18. TWX, CG, USAFSS to CO, 6920th SG, Cite: OCD-96779, 17 Dec 1951. s.d. 166.

19. Ltr., Hq, USAFSS to D/I, USAF, Subj: USAF Security Service - Armed Forces Security Agency Reporting Agreement, 25 Oct 1951. s.d. 167.

* Lip service had been paid this concept since October 1951. However, Group implementation of the doctrine had invariably elicited criticism. Therefore, at the AFSA-AFSS Control Conference 10-13 Dec 1951, this responsibility was clearly recognized by adopting and issuing instructions for such emergency action.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

169

Departmental recipients would read:²⁰

Complete reports on all areas prepared by AFSA as soon as possible, but in no event later than 72 hours of intercept time if required. . . .

The change was incorporated by USAFSS and the Director of Intelligence, USAF informed DIRAFSA of the Air Force approval of the proposal on 13 December 1951.²¹ The agreement provided for point of intercept, theater level, and Zone of Interior processing by requiring specific reports to emanate from these areas.** The point of intercept agency was authorized to prepare and disseminate log digests in diarized form, situation summaries and spot items in addition to technical reports whenever required. The theater level agency was authorized to prepare and disseminate to AFSA, USAFSS and Theater Air Commanders situation summaries, spot items and such technical and intelligence reports as required for Theater (Air Commanders or USAFSS units) support. The agreement was approved by DIRAFSA on 8 February 1952, thus cementing the Air Force concept of timely or close support COMINT operations.²²

20. AFSA-AFSS Relations, May 1949 - Jan 1953. 10 Sep 1953.

21. Memo for DIRAFSA, Subj: (Unclassified) USAFSS-AFSA Reporting Agreement, 13 Dec 1951. s.d. 168.

22. USAFSS-AFSA Reporting Agreement, 8 Jan 1952. s.d. 169.

* The USAFSS proposal had not stipulated complete reports within 72 hours if required.

** Actually, this was a modified and enlarged USAFSS version of a processing proposal made by AFSA on 13 September 1951.

~~TOP SECRET EIDER~~

90

~~TOP SECRET EIDER~~

Initial Group Operations. In reality, the Group assumed the intelligence production functions of USAFSS in the Far East Theater. Hence, in the beginning, the analysis and reporting units of the 1st RSM were renamed and the two local COMINT outlets--Liaison Officers at FEAF and 5th Air Force--were made Group representatives. Actually, no physical movement of personnel or equipment occurred.²³ Also, the intercept and communications activities remained squadron functions as well as a certain amount of preliminary analysis. However, these functions were under the overall control of Group Operations.

By the date the Group assumed control of Far East activities, it had become apparent that a more effective means of RDF control was necessary, particularly in connection with voice targets. The RDF operators were not Russian linguists. Therefore, getting a desired bearing on such a target was almost impossible. Consequently, a Voice position was installed in the Russian Translation Section. It was equipped with receiving equipment, field phone communications and a signalling device connected to the RDF site. Hence, the voice intercept operator could inform the RDF operator the exact time a bearing was desired. Prior to the end of December 1951, this technique had been implemented in the RDF sites at USA 38, 38A and 38B during

23. Historical Data Report, 6920th SQ, Oct-Dec 1951.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

171

the hours of greatest activity. This method had produced results which were deemed satisfactory.²⁴ Aside from the above operations (techniques), the early Group practices were naturally reflected in the conduction of the ChiComAir, ChiCom Weather and North Korean exploitation functions. However, these operations were so closely related to special phases of COMINT collection and production that they are discussed elsewhere in this Chapter.

P.L. 86-36
EO 3.3b(3)

From the standpoint of intelligence requirements, the performance (operations) of the Group during this early period was summarized by the Group Operations Officer in December 1951, in relation to satisfying FEAF and 5th Air Force intelligence requirements, as follows:²⁵

1. Coverage.

P.L. 86-36
EO 3.3b(3)

Korea is thoroughly covered. All known or suspected C/W and R/T Air and Weather cases in Korea are covered, including North Korean, Russian and Chinese.

Manchuria is well covered. Full coverage is given all known ^{25x3} nets in Manchuria which reflect tactical activity. Chinese PVO in this area is well covered. Partial coverage is given Russian Navigational and tactical R/T nets, and ^{25x3} training nets. Weather from this area is currently obtained largely from Navigational and flight service nets.

24. Monthly Status Report, 1st RSM, Dec 1951. TSC 5449R.

25. 1st Ind (Ltr., Hq FEAF to CG, 6920th SG, Subj: Far East Air Force Intelligence Requirements, 4 Nov 1951) Hq 6920th SG to CG, USAFSS, 1 Dec 1951. s.d. 170.

~~TOP SECRET EIDER~~

91

~~TOP SECRET EIDER~~

EO 3.3b(3)
P.L. 86-36

25x3

2. Intelligence.

25x3

Air activity is, of course, our major effort. Information on types of aircraft is furnished on nearly all activity. Information on Russian Aircraft types is not as specific; R/T can distinguish jet and conventional fighters from other types; transports are often identified through aircraft registration numbers. No Russian bomber aircraft have been specifically identified as bombers or as specific types of bombers, except Russian TU-2's in Manchuria. Duration and length of flights and altitudes are occasionally available from navigational traffic. Crashes and accidents are sometimes noted, but the cause and extent of damage are usually unknown.

Weather requirements of FEAF and 5th Air Force are being partially filled (since the changed on 1 October) by thorough broadcasts, and other readable weather. A joint AFSA-AFSS effort at this Hq is scheduled to attack the new with excellent chances of success.

Civil and Military air routes are reported on a routine basis. Cargo and passenger information (including VIP's) is normally obtained from Russian nets in Manchuria, occasionally from nets in Siberia.

Special maneuvers and exercises are normally noted and reported, although detailed information is usually available only when the exercises can be covered by R/T. Unit identification of units is furnished on a routine basis. Russian units are reported by arbitrary unit designations.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

173

New types of aircraft have been reported on [25x3] nets (MIG-17). No new types have been noted on Russian nets, and it is believed that new types will be detected only through T/A reflecting maximum performance of aircraft.

P.L. 86-36
EO 3.3b(3)

No indication of guided missile or aircraft tests have been noted. Detection of guided missile activity is considered beyond our present capabilities.

* * * * *

Information on early warning radar locations, capabilities and associated air warning communications (PVO) is produced on a routine basis with close coordination with the Ferret program. Russian and Korean GCI nets in Korea are being covered and the Russian net is being exploited tactically. (The Korean GCI net is currently in the development stage). Both [25x3] and Russian practice GCI exercises have been noted. To date, the tie-ins between EW and GCI have not developed. Notices of enemy aircraft movements are furnished 5th Air Force on a minute-by-minute basis from coverage of [25x3] nets and Russian GCI.

* * * * *

Arrangements have been made for passing flash-type intelligence to 314th Air Division and subordinate control Centers.** Considerable work and planning remains to be done, particularly in regard to secure communications, before we are fully ready for tactical operations in Japan.

CONSOLIDATION OF CHICOM WEATHER EFFORT

Although some desire to consolidate the Chinese Weather effort at USN 39 had been expressed by AFSA prior to November 1951,²⁶ the effort was eventually concentrated at Johnson and Seoul under the

26. TWX, DIRAFSA to USA 38, Cite: ARL 49188, 18 Oct 1951. s.d. 171.

- * The responsibility for operation of the ELINT effort had not been delegated to USAFSS at the time the letter was written.
- ** This action represented the beginning of the SSO Service to JADF as well as the beginning of Mainland TACOMINT service, which later became known as "Bittersweet".

~~TOP SECRET EIDER~~

92

DOCID: 3737095

174

~~TOP SECRET EIDER~~

operational control of the 6920th Group. ASAPAC was scheduled to be phased out of its Chinese Weather commitments.²⁷ This consolidation of effort and control resulted, in part, from previous experience and agreements.* However, it was the immediate result of the [25x3]

[25x3] of Chinese Weather information, particularly on [25x3] L. 86-36
O 3.3b(3)

This act, on the part of the Chinese Communists, effectively denied analysis personnel certain [25x3] that was being

[25x3]

Early Weather Consolidation Negotiations.

By early November 1951, AFSA and USAFSS had agreed to concentrate the Chinese Weather effort at the Group, send a team of AFSA Weather personnel to the Far East to augment the Group processing capability and increase USAFSS coverage of the Chinese Weather picture.²⁸ The Group readily agreed to the plan and advanced the following suggestions relative to conducting the operations:²⁹

[25x3] this appears to be the proper time for solving this [25x3] as [25x3] section of the collective broadcasts/ is repeating for the third time. Other sections, having fewer stations, are on their second repeat. For cribbing material, suggest coverage of following cases

[25x3]

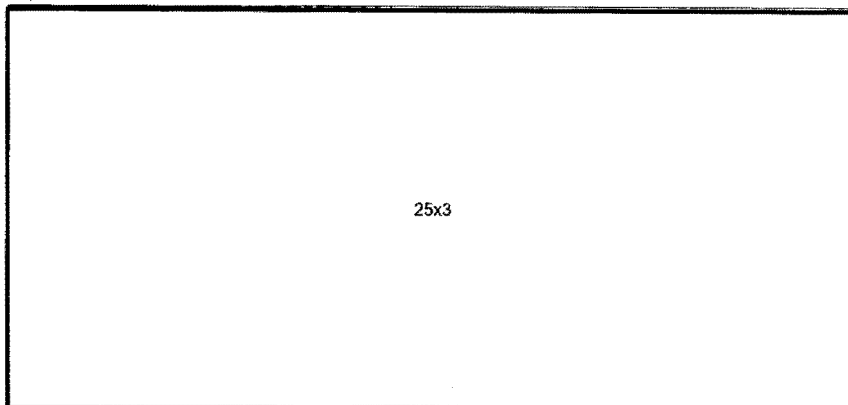
27. TWX, 1st RSM to CG, USAFSS, Cite: TS 327, 26 Oct 1951. s.d. 172.
 28. TWX, CG, USAFSS to CO, 1st RSM, Cite: OCD-1-SZ 652, 9 Nov 1951. s.d. 173.
 29. TWX, 1st RSM to CG, USAFSS, Cite: TS 667, 21 Nov 1951. s.d. 174.
- * See Influence of Weather Problem, Chapter III, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

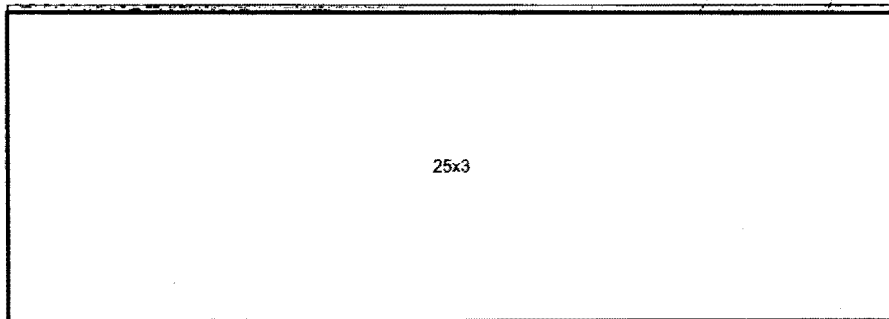
175

At the same time, the Group stated:³⁰



P.L. 86-36
EO 3.3b(3)

However, the proposed operations plan was modified somewhat by AFSA prior to its implementation. On 29 November AFSA wired the Group as follows:³¹



P.L. 86-36
EO 3.3b(3)

Further, on 2 December, AFSA requested that one 24-hour position be made available at USA 38 for cover of [25x3] in order to provide operational traffic for the Weather Team. At the same time, that agency stated that [25x3] would be dropped at USN 39, but that

30. Ibid. s.d. 174.

31. TWX, DIRAFSA to 1st RSM, Cite: ARL 57325, 29 Nov 1951. s.d. 175.

~~TOP SECRET EIDER~~

93

176

~~TOP SECRET EIDER~~

USA 38 would have to teletype the traffic from the case back to AFSA.³²

P.L. 86-36
EO 3.3b(3)

Group Assumes Production Control of Joint Effort. Concurrently, the Group assumed control of the project and integrated the AFSA Team and USAFSS capability.³³ By 6 December, the Group had established operations and had begun processing BGA and KHQ broadcasts. Although complete coverage of the ACP broadcasts was being transmitted from Kiyose, it was of an undetermined quality. Hence, a 24-hour coverage of the broadcast was begun at USA 38.³⁴ Nevertheless, by 13 December, it was apparent that interference at USA 38 was hampering the interception of [25x3]. Further, difficulties were being experienced with the landline facilities to Kiyose. Since the recovery of [25x3] [25x3] depended on good copy, the Group recommended the following intercept procedures:³⁵

One, 24-hour coverage of the net at Station 39 and the electrical transmission of the raw traffic to USA 38, or, two, USN 39 cover the net from 2100 to 0900 and USA 38.*

Moreover, before the end of December 1951, the requirements of the Tokyo Weather Central for weather reports from the XLJ area.

32. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 57934, 2 Dec 1951. s.d. 176.

33. TWX, 6920th SG to Hq, USAFSS, Cite: TS 851, 3 Dec 1951. s.d. 177.

34. TWX, 6920th SG to DIRAFSA, Cite: TS 911, 6 Dec 1951. s.d. 178.

35. TWX, 6920th SG to CG, USAFSS, Cite: TS 006, 13 Dec 1951. s.d. 179.

* Night reception at USA 38 was excellent.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

177

had caused the Group to expand its weather collection and production efforts to include that phase of the Chinese Weather problem. This information was forwarded to AFSA on 28 December. Also, the Group suggested that AFSA assist the effort by working ahead of the [REDACTED] or send

P.L. 86-36
EO 3.3b(3)

the Group the write-up sheets prepared. Then the Group would process all traffic from that area, thus allowing AFSA to devote its entire time to [REDACTED] and to increase the [REDACTED]

USAFSS Presses for Further Control of Weather Effort. By the end of December 1951, an early SWI production concept* had been proven fallacious and had been rectified somewhat by events. The success of the newly developed and partially implemented concept was such that Headquarters, USAFSS, early in January 1952, requested a review of the current AFSA-USAFSS division of effort on the Special Weather program. This request was placed in a letter to the DIRAFSA on 9 January 1952, which stated:³⁷

. . . currently, the division of effort is made on the basis that each agency process different types of weather reports. As a practical matter,

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36. TWX, 6920th SG to DIRAFSA, Cite: TS 284, 28 Dec 1951. s.d. 180.
37. Ltr., Hq, USAFSS to DIRAFSA, Subj: Division of Responsibilities in Connection with Special Weather Intelligence, 9 Jan 1952. s.d. 181.

* Theater processing at one location and hemispheric processing at another.

~~TOP SECRET EIDER~~

94

~~TOP SECRET EIDER~~

it has been impossible to make a clear cut division on this basis, and, as a consequence, there is and will continue to be unnecessary duplication of effort between AFSA FWPU's and USAF Security Service units in the field.

. The division of responsibility along functional lines as indicated above* would be compatible with the respective missions of AFSA and USAF Security Service. . . and will parallel the division of responsibilities now existent in the production of other types of combat intelligence.

On 14 February 1952, AFSA replied as follows:³⁸

. It is fully realized that the Air Force has a major interest in the Special Weather Problem.** The planned relocation of FWPU (Pacific) to USAFSS Group Headquarters at Fuchu, Japan. . . and the preponderance of Air Force personnel in the FWPU Tables of Distribution all indicate recognition of the vital importance of providing full liaison with, and support of, the major Special Weather Intelligence consumer.

. The establishment of the FWPU's under the operational control, and with the technical support, provided by a joint agency such as AFSA, has resulted in reducing the danger of service duplication in the Special Weather field. The relocation of FWPU (Pacific). . . should tend to minimize this danger even further.

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38. 1st Ind (Ltr Hq USAFSS to DIRAFSA, Subj: Division of Responsibilities in Connection with Special Weather Intelligence, 9 Jan 1952) DIRAFSA to CG, USAFSS, 14 Feb 1952, Serial 00038. s.d. 182.

* The functional division of responsibilities recommended generally envisioned AFSA as a Central Weather Research agency and USAFSS as the SWI collection and production agency.

** USAFSS had inclosed a letter from the D/I, USAF, which charged USAFSS with the responsibility of providing AWS with SWI required for Air Force operations.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

179

Then, AFSA suggested that further consideration of the USAFSS proposal be deferred until a later date.

FUNCTIONAL OPERATION OF 25x3 EFFORT

As for the 25x3 problem, by early October 1951, the efforts of AFSA to produce the Chinese Communist Air picture at short intervals had fallen short of the original objective, primarily because of inadequate communications facilities. In addition, the insufficient Chinese translating capability was severely retarding field exploitation of collected data.* In contrast, the ChiCom Air participation in the conflict was known to be increasing.** Hence, AFSA proposed a uniform, abbreviated manner of exchanging information and decrypts among AFSA, ASAPAC and the 1st RSM. The abbreviated form was the same as employed by AFSA in IBM logs. In essence, the proposal would increase the 25x3 pictures prepared by the field agencies (ASAPAC and 1st RSM), but would reserve the complete timely picture for AFSA production.³⁹ Subsequently, AFSA indicated that it might furnish USAFSS a limited number of trained Chinese linguists to assist in field exploitation of the 25x3 problem.⁴⁰

P.L. 86-36
EO 3.3b(3)

39. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 50172, 22 Oct 1951. s.d. 183.

40. TWX, CG, USAFSS to CO, 1st RSM, Cite: ODC 95655, 26 Oct 1951. s.d. 184.

* See Influence of 25x3 Problem, Chapter III, this Study.

** See Influence of Tactical Requirements on 25x3 Problem, Chapter III, this Study.

~~TOP SECRET EIDER~~

95

DOCID: 3737095

~~TOP SECRET EIDER~~

180

1st RSM Challenges Production Concept. Meanwhile, the urgency of theater requirements for timely Chinese Air information and reception characteristics at intercept sites* had forced the 1st RSM to request authority "to control all Chinese Air coverage both as to case and location" and authority to concentrate "nine positions on Chinese Air coverage."⁴¹ Concurrently, the 5th Air Force placed an urgent requirement for the fastest possible service on ChiCom Air activity in Korea and critical border areas. Therefore, the RSM adopted the following procedures to meet the requirement.⁴²

The Ashiya unit was instructed to forward its traffic to Johnson every half-hour for "around the clock" processing. Spot items resulting from the processing were forwarded to 5th Air Force by OP message.**

The RSM established an additional position at Detachment 13. This position was physically located in Hq 5th AF, adjacent to offices of CG, A-2, AFSSLNO and the JOC. The position was manned by operators from Johnson who were capable of decrypting the stereotyped messages involved. The position covered 25x3 and concentrated on border air fields.

P.L. 86-36
EO 3.3b(3)

41. TWX, CG, USAFSS to DIRAFSA, Cite: OCD-1 SZ 410, 31 Oct 1951. s.d. 185.

42. TWX, 1st RSM to Hq, USAFSS, Cite: TS 391, 31 Oct 1951. s.d. 186.

* Fair coverage could be obtained at Ashiya and Niigata. However, Niigata was a test site and did not have the necessary transmission facilities. Thus, the site coverage and reporting plans advanced by AFSA were not in consonance with field conditions.

** This procedure placed reports in Hq 5th Air Force one hour after interception, but it was not deemed fast enough to satisfy the tactical requirement. Further, inadequate communications between Ashiya and Johnson hampered the effort. However, this effort was credited with the success of the so-called "TU Turkey Shoot" of November 1951. See Section on TACOMINT Service in Korea.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

181

This position concentrated on messages announcing MIG flights into Korea which were usually transmitted at the approximate time of take-off. No advance notice was given. Thus, the service had to be timely enough to permit the 5th Air Force to take counter action, a procedure not possible under the Ashiya-Johnson-5th Air Force operations.⁴³ The position at 5th Air Force began operations at 20001 November 1951. On the morning of the 3rd, it intercepted take-off instructions for 20 MIGS from Antung. Four minutes later the information was in the hands of the AFSSLNO, Headquarters, 5th Air Force,⁴⁴ a service that compared favorably with Team I voice exploitations.

Group Proposes Centralized 25x3 Operation. Moreover, on 6 November, P.L. 86-36
EO 3.3b(3)
in reviewing the implementation factors of the AFSA proposal for a uniform, abbreviated 25x3 data exchange procedure, the Group took strong exception to the decentralized effect of the proposed procedures on theater processing and reporting. At the same time, the Group requested that any change affecting the Chinese Air problem be considered in the light of tactical requirements and be coordinated with tactical organizations.* In addition, the 1st RSM immediately procured crypto equipment for the Niigata Team to satisfy FEAF

43. TWX, 1st RSM to CG, USAFSS, Cite: TS 423, 2 Nov 1951. s.d. 187.

44. TWX, Det 13, 1st RSM, to CG, USAFSS, Cite: CS 116, 3 Nov 1951. s.d. 188.

* See: Influence of Tactical Requirements, Chapter III, this Study.

HQS USAFSS TSC No 59-09525

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Page 96 192 Pages

~~TOP SECRET EIDER~~

182

~~TOP SECRET EIDER~~

requirements for spot reports on ChiCom Air activity. Further, the RSM recommended Niigata as a superior reception site for Chinese and Russian traffic of a tactical nature,* and hence a major Detachment site.⁴⁵

At that time, ASAPAC was also supplying FEAF and 5th Air Force ChiCom Air Information. Actually, the SSO, 5th Air Force, was receiving translations of ASAPAC Chinese Air intercept and ChiCom Air messages obtained from Detachment 13 by ASAPAC advance. This material was then relayed through the SSO, GHQ, FEC channels to FEAF. However, on 8 November, the SSO, FEAF, informed the 6920th Group that the SSO, GHQ was no longer capable of passing the information and desired the Air Force to supply its own channel.⁴⁶ At the same time, the Deputy for Intelligence, FEAF, queried the Group concerning its capability to process all Chinese Air messages and to pass them electrically to 5th Air Force in translated form, item by item. FEAF also wanted to know what the time lag would be between intercept and receipt by 5th Air Force.

Hence, on 10 November, the Group replied as follows to the FEAF query:⁴⁷

45. TWX, 1st RSM to Hq, USAFSS, Cite: TS 437, 4 Nov 1951. s.d. 189.

46. TWX, 1st RSM to CG, USAFSS, Cite: TS 568, 13 Nov 1951. s.d. 190.

47. Ibid.

* Niigata was later developed when the Group failed to procure the necessary timely communications facilities for transmission of Ashiya intercept to central processing. Thus, circumstance again modified control and production directives from the Zone of Interior.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

183

Not presently capable of item by item translation service on all Chinese Air msgs because of insufficient processing personnel and lack of comm equip.

. . . In lieu thereof, can provide all info point to point and local acft movement from 1st and 15th RADRONMO intercept in diarized form, including type and nr acft from where to where and mission when stated, on a twice daily basis. In addition, can provide all messages of unusual nature or significance in full text with appropriate comments and analogies on immediate basis as well as end results of intercept relative to ferret flts.

. . . We are currently providing 5th AF with Chinese AOB and 4 minute (after intercept) spot service on acft take-off from Antung and TA Tung Kou for combat. We are also providing 5th AF with flt activity by aflds and types of acft, and route utilization for all routes by totals of acft and by totals of transports only, on a monthly basis.

. . . It is believed that provision of info mentioned in para 2 above will provide 5th AF with most of the intelligence presently extracted from ASAPAC spot Chinese Air msgs currently received thru FEC SSO channels. Items mentioned in para 2 will be placed on wire distribution to 5th AF, effective today /10 Nov 1951/. . .

. . . Our present capabilities Chinese Air production at Cp expected to be expanded in very near future, since add personnel this speciality expected to arrive this theater soonest and intercept coverage just expanded to assure more complete coverage.

Joint 25x3 Operations Initiated: Subsequently (12 November)

P.L. 86-36
EO 3.3b(3)

the SSO, GHQ informed the SSO, FEAF that ASAPAC would transfer its entire 25x3 capability to Korea on 13 November. The ASAPAC unit would perform 24-hour operations to provide SSO, EUSAK with item by item translations for relay to SSO, 5th Air Force, commencing 16 November. The 501st (ASAPAC Advance) would radio all translations on these nets to ASAPAC for transmission to SSO, GHQ, who would relay

HQS USAFSS 150000 11 NOV 51

Copy

97

~~TOP SECRET EIDER~~

184

~~TOP SECRET EIDER~~

them to the SSO, FEAF.⁴⁸ The above information was passed on to Headquarters, USAFSS, on 13 November, by the Group, with the following statement:⁴⁹

It is felt that the 6920th Scty Gp should assume responsibility for air coverage service to 5th Air Force, including provision of translations of ChiCom Air msgs required by 5th Air Force.

However, the following day, the units in Korea which were concerned with the ChiCom Air problem (501st, 60th Signal and Detachment 13) modified the ASAPAC plan somewhat. At that time, it was decided to propose to ASAPAC that its 25x3 capability in Korea be integrated with the one USAFSS position covering 25x3. This joint effort would be located at Headquarters, 5th Air Force. Therefore, 5th Air Force would receive the timely service required. Detachment 13 would radio all translations to Group for relay to ASAPAC and FEAF. The raw traffic would be couriered to the 501st for passage to ASAPAC and AFSA.^{*50}

P.L. 86-36
EO 3.3b(3)

48. Ibid.

49. Ibid.

50. TWX, 6920th SG to CG USAFSS, Cite: TS 586, 14 Nov 1951. s.d. 191.

* This joint procedure was implemented in November 1951 and continued operations until 1 February 1952.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

185

AFSA Concurrs with Consolidation Trend. The DIRAFSA tacitly indicated a desire to see the [25x3] problem concentrated at one site in the Far East, preferably under the control of the Group.⁵¹ The information was passed on to the Group personnel, who informally discussed the idea with ASAPAC personnel on 21 November. As a result of the conference, the Group informed USAFSS that such an act would increase Group processing immeasurably and eliminate current unnecessary duplication, thereby resulting in a much better service to consumers. Further, the Group pointed out that no housing or equipment problem existed, and stated, "present AFSS intercept coverage believed adequate and present [25x3] coverage at ASAPAC stations could be phased out."⁵² Therefore, on 23 November, USAFSS sent DIRAFSA the following message:⁵³

It is requested that you approach CG, ASA, with the suggestion that ASAPAC personnel now processing Chinese Communist Air traffic in Japan be temporarily moved to the First RADRONMO where they will remain until the USAFSS unit could take over full responsibility. . . . If this move is made, then [25x3] coverage at ASAPAC can be phased out and picked up by First RADRONMO.

P.L. 86-36
EO 3.3b(3)

On 30 October, the DIRAFSA replied that the USAFSS proposal was being discussed with ASA, but that agreement hinged on implementation of the following arrangements:⁵⁴

51. TWX, CG, USAFSS to 1st RSM, Cite: ODC 96142, 16 Nov 1951. s.d. 192.
52. TWX, 1st RSM to CG, USAFSS, Cite: TS 676, 21 Nov 1951. s.d. 193.
53. TWX, CG, USAFSS to DIRAFSA, Cite: ODC SZ 862, 23 Nov 1951. s.d. 194.
54. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 57414, 30 Nov 1951. s.d. 195.

98

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

AFSS to forward by teletype all its intercept from Ashiya to Johnson (Group) and AFSA. AFSS to forward by teletype from Johnson to AFSA the results of exploitation at Johnson, such results to include spot translations of significant flights and other information.

At the same time AFSA stated that the consolidation of the [25x3] processing effort would not require the [25x3] traffic to be forwarded by teletype to AFSA until a suitable abbreviated format could be adopted. USAFSS generally concurred with the counter proposal made by AFSA, but took exception to the requirement implied in the abbreviated format suggestion. In other words, USAFSS saw no need for rushing raw material back to AFSA since the experts* would be in the Far East.⁵⁵ Nevertheless, AFSA proposed to carry out the original abbreviated [25x3] exchange suggestion,** made prior to the consolidation proposal, until a better means of exchanging [25x3] data was found.⁵⁶ Therefore, AFSA developed a format to be employed as a daily report on [25x3]⁵⁷ and USAFSS instructed the Group

P.L. 86-36
EO 3.3b(3)

55. TWX, CG USAFSS to CG, 6920th SG, Cite: ODC-SZ 060, 4 Dec 1951. s.d. 196.

56. TWX, DIRAFSA to ASAPAC, Cite: ARL 61292, 21 Dec 1951. s.d. 197.

57. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 60211, 14 Dec 1951. s.d. 198.

* AFSA agreed to send a party of its experts to Johnson to assist in [25x3]

** AFSA had been assigned the responsibility for technical support of the ChiCom Air effort in October 1952, thus becoming the ZI processing agency for [25x3] traffic.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

187

to start the report, priority precedence as soon as possible.⁵⁸

ASAPAC Proposal Rejected. While the negotiations for Consolidation of the 25x3 activity was underway, ASAPAC proposed the consolidation of the Cho unit (USAFSS South Korean Unit) with the Kim Unit (ASA South Korean Unit) under the control of ASAPAC. In turn, ASAPAC would guarantee any Korean Communist Morse coverage required. DIRAFSA concurred with the proposal, except in so far as it might affect direct targets, e.g., Korean Communist GCI, for coverage of which a small team of the Cho unit would remain at Detachment 13.⁵⁹ However, when informed of the proposal, the 6920th Group wired USAFSS as follows:⁶⁰

P.L. 86-36
EO 3.3b(3)

At the time of the discussion with ASAPAC it was believed Captain Cho ROK unit primarily concerned with North Korean military nets. Have personally visited unit and find them now concentrating almost entirely on Korean Air. Consider Cho unit essential to Air COMINT effort in view of indications of North Korean Air buildup. Further, strong personal antagonism between Cho and Kim indicates Cho will not work for or with Kim. Believe there should be no change in Cho unit.

Headquarters, USAFSS concurred with the Group and informed AFSA on 28 December that such contemplated action would jeopardize maximum efficiency at a critical time.⁶¹ Thus, the functional practice had begun to replace the artificial concepts of production in the theater of operations by 1952.

58. TWX, CG, USAFSS to DIRAFSA, Cite: OAD-SZ-311, 17 Dec 1951. s.d. 199.

59. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 61315, 21 Dec 1951. s.d. 200.

60. TWX, 6920th SG to CG, USAFSS, Cite: TS 217, 25 Dec 1951. s.d. 201.

61. TWX, CG, USAFSS to DIRAFSA, Cite: OAD SZ-504, 28 Dec 1951. s.d. 202.

~~TOP SECRET EIDER~~

99

~~TOP SECRET EIDER~~

25x3 Group Operations. The Group Operations Officer, upon request P.L. 86-36
3.3b(3)
from Headquarters, USAFSS, on 18 December 1951, adequately summarized
the status (operational) of the 25x3 problem and the conclusions (opera-
tional) prevalent by the end of December 1951. At that time, the
Operations Officer stated that the core of the problem was the timely
exploitation of aircraft movements and related messages, which re-
sulted in some duplication of intercepts by CW positions.* In rela-
tion to the Chinese voice problem, the Group viewed the voice activity
as largely an unknown quantity, although some Chinese voice had been
intercepted and tentatively exploited. As for the production prac-
tices, the officer wrote:⁶²

The ChiCom problem illustrates the merits of the AFSS con-
cept of centralized overseas processing. This affects
maximum economy of critical skills, and is essential in
deriving maximum benefit from the interrelationships with
all other analysis, and (as soon as the concept of Group
intercept control is fully implemented) will permit most
efficient, responsive intercept control. Only when com-
mand communications are unable to meet time requirements
is it considered desirable to detach a portion of the pro-
cessing from the center. This was done in the case of
the three-man team set up at Headquarters, 5th Air Force. . .

. . . The 6920th Group (and subordinate or attached units)
is now meeting the requirements of FEAF and 5th Air Force
on a timely basis. The addition to CC processing of recently

62. 1st Ind (Ltr., Hq, USAFSS to CO, 6920th SG, Subj: Clarification
of Various Comint Problems, 23 Nov 1951) Hq, 6920th SG to CO,
USAFSS, 18 Dec 1951. s.d. 203.

* At that time the Group had 12 CW positions assigned to eight 25x3
cases and ChiCom Air search.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

189

arrived personnel has made it possible to process all pertinent intercept on a current basis around the clock.* Both FEAF and 5th Air Force have expressed satisfaction with the service being provided. The capabilities stated above are being achieved on an emergency basis calling for maximum hours and effort by all processing personnel (average: over 60 hours each week). . . .

In general, the AFSA Language Team, lent to the 6920th Group early in January 1952, supported the conclusions (operational) advanced by the Group in December 1951. Early in February 1952, this Team, in its second progress report to AFSA O2, emphasized the prime responsibility of AFSA to the units engaged in the [25x3] effort as "the quick and steady flow of backup information to those units."⁶³ The Team also stated that it and the 6920th Group had developed a processing capability whereby all messages received by the Group from intercept locations could be translated and issued electrically in concise form to AFSA and other consumers. The actual implementation of the activity awaited only the establishment of adequate communications systems. The Team further reported that transfer of the ASAPAC [25x3] capability to the Group could be effected with the establishment of necessary communications. It also stated that such a consolidation should easily handle the [25x3] problem.

EO 3.3b(3)
P.L. 86-36

63. Report, AFSA Language Team to Chief, AFSA O2, Subj: AFSA Language Team Biweekly Report No. 2, 8 Feb 1952. s.d. 204.

* This statement was adequately substantiated on Christmas Day 1951.

25x3

~~TOP SECRET EIDER~~

100

190

~~TOP SECRET EIDER~~

P.L. 86-36
EO 3.3b(3)

ASAPAC Phases Out of [25x3] Effort. In respect to phasing ASAPAC out of the ChiCom Air effort in the Far East, the control of the joint effort at Headquarters, 5th Air Force, was assumed by Group on 1 February 1952. By that date, the majority of the ASAPAC personnel had already been replaced by USAFSS personnel.⁶⁴ However, the transfer of the Headquarters, ASAPAC ChiCom Air effort to Group was pending. Although the mechanics of the transfer had been worked out satisfactorily, the SSO, GHQ, was withholding his concurrence, pending assurance that his office would receive the same service, time-wise, as currently provided by ASAPAC. This meant that the Group would have to provide the SSO, GHQ and AFSA with copies of all translations, [25x3] etc.* It also required concurrence on the part of General Banfill,⁶⁵ DC/S Intelligence, Headquarters, FEAF. The problem was solved and the responsibility for [25x3] coverage, processing and reporting, was transferred to the 6920th Group on 10 March 1952. Simultaneously, the ASAPAC (Headquarters) personnel engaged in [25x3] activity were transferred (attached) to the Group.⁶⁶

64. Ltr., Hq 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 10, 11 Feb 1952. s.d. 205.

65. Ltr., Hq 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 9, 27 Jan 1952. s.d. 206.

66. Ltr., Hq 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 12, 11 March 1952. s.d. 207.

* This fact also posed a problem, communications-wise. The list of recipients did not hold a common crypto system so that these [25x3] end products could be passed simultaneously by Group. The problem was resolved at Group by encrypting these products in two systems.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

191

CLOSE SUPPORT OPERATIONS AND DEVELOPMENT PROBLEMS

On-the-spot exploitation continued to be the primary objective of the USAFSS TACOMINT effort in the Far East throughout the winter of 1951-52. Therefore, the NKAF problem and, to some extent, the Russian and Chinese GCI problems were dealt with on a timely basis in Korea. Some guidance and support were supplied from Japan. However, the Ferret coverage phase of the TACOMINT program, as well as the rapidly developing VHF problem, was somewhat of a joint effort. This, they cut across boundary lines, both geographical and political.

TACOMINT Service in Korea. As previously stated, USAFSS had one Detachment (Headquarters and 2 Teams) in operations in Korea when the Group assumed command. These units were under the operational control of the AFSSLNO, 5th Air Force and their service had already proven valuable in conducting Air Operations. This TACOMINT ("Y" Service) capability was augmented by establishing a one-position capability at Headquarters, 5th Air Force, on 2 November 1951.* It was further enlarged by Team III five days after Group assumed command.** At that time (10 November 1951), Team III began monitoring the HF band for Air/Air, Air/Ground and Ground/Air voice transmissions. Because of the linguist abilities of members of Team III, the Team was allowed to

* See Joint 25x3 Effort, this Chapter.

** See Development of Team III, Chapter III, this study.

P.L. 86-36
EO 3.3b(3)

HQS USAFSS TSC No 59-09525

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Page 101 of 192 Pages

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

monitor any suspected Air Voice transmissions which could be understood by its members. This decision later proved prudent because a definite interrelationship among the Russian, Chinese and North Korean GCI nets was established.

As the proficiency of Team III increased, the Team was also allowed to attempt correlation of its information and prepare written reports. Operational control of this Team was exercised by the OIC of Team II.⁶⁷ It consisted of the following procedures:

Guiding intercept by frequencies to prevent monitoring of frequencies previously identified as Army Ground nets. /These nets were viewed as non-essential to the TACOMINT effort. /Requiring English translations of all voice transmissions and the listing of frequencies and times.

This effort of Team III also aided in pegging the North Korean Voice GCI net. Early in November, analysis of R/T traffic revealed the existence of such a net. By 23 November, analysis of traffic from the net had tentatively located the voice net in the Antung-Sinuifu area.⁶⁸

During late November, analysis of the traffic from the NK GCI net revealed that the net extended into Korea and controlled MIG aircraft in combat. There were two controllers. One was located at Uiju airfield while the other was located at an unidentified field.⁶⁹ The

67. TWX, 6920th SG to DIRAFSA, Cite: TS 857, 3 Dec 1951. s.d. 208.

68. TWX, 6920th SG to Hq, USAFSS, Cite: TS 722, 23 Nov 1951. s.d. 209.

69. TWX, 6920th SG to CG, USAFSS, Cite: TS 780, 26 Nov 1951. s.d. 210.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

193

North Korean GCI net, by 14 December, had been developed to the extent that plans were begun for collocation of Team I* and Team III. They were to be located on Radar Hill near Kimpo and were scheduled to tactically exploit the NK GCI net.⁷⁰ Further, by late December, Team II had discovered what appeared to be a Chinese Voice GCI Training net, which was operating in Manchuria,⁷¹ and Team III had encountered some Chinese voice on the Korean language GCI net as well as some other Chinese voice tentatively identified as Air-to-Air communications.

In relation to the processing (production) effort, the NK Communications continued to be exploited at Detachment 13. This exploitation was generally limited to C/W transmissions until the discovery and development of the NK GCI language net. Although the C/W effort of the Cho unit did not provide a volume of tactical intelligence, it did supply a considerable amount of strategic information, i.e., airfield data, North Korean air defense data and information on the status of the NKAF Training program in Manchuria. Further, the success of this effort resulted primarily from the unique

70. TWX, 6920th SG to CG, USAFSS, Cite TS 044, 14 Dec 1951. s.d. 211.

71. 1st Ind (Ltr., Hq, USAFSS to CO, 6920th SG, Subj: Clarification of Various COMINT Problems, 23 Nov 1951) Hq, 6920th SG to CO, USAFSS, 18 Dec 1951. s.d. 203.

* Team I was concentrating on Russian voice. This Team was composed of Americans. Team III was concentrating on the North Korean GCI net. This plan was disapproved at that time in accordance with the USCIB-LSIB agreement.

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~~TOP SECRET EIDER~~

192

194

~~TOP SECRET EIDER~~

abilities of Cho and was governed by tactical requirement for the products. In essence, the necessity for utilizing ROK linguists on North Korean traffic required the traffic to be processed in Korea. After the discovery of the NK GCI language net and the development of Team III, some preliminary voice processing was accomplished by Team III. However, Group Analysis actually developed the NK GCI language net from the traffic and translations supplied by Team III by applying the experience gained in the analysis of the Russian GCI net.⁷² This net had been the prime target of Team I.

The TACOMINT capability continued to support theater operations throughout the winter of 1951-52. This service also contributed information of developmental or strategic nature during this period.* In respect to supporting air operations, TACOMINT was effective in frustrating enemy night intercept of UN aircraft. By late December 1951, this type of service had developed into the following system.⁷³

Team I would monitor the enemy ground controller. The enemy controller would direct his aircraft to proceed to a specific zone

72. 1st Ind (Ltr, Hq, USAFSS to CO, 6920th SG, Subj: Clarification of Various COMINT Problems, 23 Nov 1951) Hq, 6920th SG to CO, USAFSS, 18 Dec 1951. s.d. 203.

73. TWX, 6920th SG to CG, USAFSS, Cite TS 229, 25 Dec 1951. s.d. 212.

* This type of information included data on Communist Air and Ground operational techniques and capabilities as well as data on Communist techniques employed to lessen the effectiveness of the US TACOMINT effort. It also included the first and many succeeding references to UN Aircraft violations of the Yalu River border.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

195

to work. Various vector instructions would be given and when the enemy aircraft was in an advantageous spot, instructions were given to the Communist aircraft to attack. Team I would then instantly relay a prearranged code signal to the friendly controller. The friendly controller would immediately transmit this prearranged coded signal on VHF frequency guarded by the B-26 crews. The code signal was changed daily. This signal meant "aircraft in blank zone, fighter about to attack you, break at once."

P.L. 86-36
EO 3.3b(3)

This system was deemed 100 per cent effective in preventing loss of B-26 aircraft to enemy night interceptors until the B-29 raids began in May 1952. At that time, TACOMINT Service at night was terminated.* By that time the TACOMINT service for the 5th Air Force consisted of Headquarters Detachment 151** (5 ROKAF C/W positions in Major Cho's unit and 4 USAFSS C/W positions); Team I on Russian GCI (Two USAFSS voice positions) Team II on Chinese GCI (2 25x3 manned voice positions) Team III on Trilingual GCI (2 South Korean manned voice positions); 2 USAFSS Weather positions and 2 Voice positions at Headquarters, 5th Air Force. The two voice positions at 5th Air Force were supplying early warning to 5th Air Force on Communist flights into Korea which were reported on Navigational Air nets. The Weather positions were

* Information furnished by Major Lewis D. Nixon. Major Nixon was the AFSSLNO at Hq 5th Air Force during this period.

** Detachment 13 was transferred to the 15th RSM January 19, 1952, and redesignated Detachment 151.

~~TOP SECRET EIDER~~

103

~~TOP SECRET EIDER~~

supplying operational Weather reports to the 30th Weather Squadron.⁷⁴

Team I began supplying 5th Air Force with additional information which assisted in the destruction of several MIG's during day-time flights. Briefly, Team I equated a codeword (LODKA), which the Russian GCI net controller began using late in December 1951, with Chinese and Korean training flights in Korea. The conclusion was based on the fact that this codeword had never been heard on Russian nets and that ground stations and spotters were constantly querying the net controller as to who was located in blank zone. The net controller would reply "that is LODKA." Hence, Team I concluded that LODKA flights were Chinese and Korean pilots on training missions. Therefore, arrangements were made with the Senior TADC controller to vector F-86's on the LODKA flight if possible. On 13 December the Soviet controller placed a LODKA flight in a zone north of the Sinanju-Anju area. Team I immediately flashed the TADC the following pre-arranged signal: "Track 6, 10 miles north of Sinanju-Anju area, pls vector."* The controller vectored the F-86's to the area and they encountered 10 MIG's with wing tanks. Four MIG's were destroyed. Another flight of F-86's vectored to the area encountered

74. TWX, 6920th SG to CG, USAFSS, Cite: SG 743, 8 March 1952. s.d. 213.

* "pls vector" was the signal used to identify the LODKA flights. It was later changed to "Jackpot." LODKA was also changed to VOLOS, but quickly equated. Information furnished by Major Robert O. Brooks, who was assisting in improving the Korean TACOMINT service at that time.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

197

25 MIG's and destroyed three. Isolated engagements then accounted for two more MIG's destroyed and two possibles. Further, the lack of discipline on the part of the MIG pilots engaged confirmed the Team 1 assumption.⁷⁵

Aside from the above type of support for Air Operations, TACOMINT also supplied intelligence which was employed to counteract enemy air strikes or missions. In respect to this type of support, the Mainland (Japan) TACOMINT effort also supported tactical air units. One of the outstanding examples of tactical support by the Mainland Air Force close Support COMINT effort occurred on 30 November 1951. On 29 November, a message, giving flight plan for communist aircraft from Mukden to Cholsan, was intercepted by four US COMINT units. However, the message intercepted at Niigata was complete and ungarbled. It was passed to the Group which 25x3 the message stated and passed the information to the AFSSLNO, 5th Air Force. The message stated that TU-2's of the 8th Air Division were to depart from Manchuria and bomb Sim-Do Island, Korea. Additional messages were sent during the day which indicated related MIG activity. Therefore, the AFSSLNO and the SSO, 5th Air Force, in conjunction with the 5th Air Force

P.L. 86-36
EO 3.3b(3)

75. TWX; Det 13, 1st RSM, 60 6920th SG, Cite: CS 681, 6 Jan 1952. s.d. 214.

~~TOP SECRET EIDER~~

104

~~TOP SECRET EIDER~~

Operations Officials, rescheduled the entire 5th Air Force daytime flight and target areas in order to have F-86 fighters near Sim-Do at approximately the same time as the TU-2's.* Official records reveal that six TU-2's, three LA-9's, and one MIG were destroyed and three TU-2's damaged. The U.S. aircraft cost was one slightly damaged F-86.⁷⁶

Hence, the second major intelligence requirement placed in the spring of 1951—the effectiveness of enemy GCI operations and the capabilities and characteristics of enemy night intercept^{**}—had been determined and was being tactically exploited by Air Force COMINT units and tactical Air Forces by 1952. Generally, the effectiveness of enemy GCI operations was determined from intercept of 25x3 This intercept revealed that the GCI net was a combination of EW radar, ground spotters and ground control intercept radar, all of which operated on the same frequency as the aircraft served. Further, the traffic had disclosed that EW was effective at a distance of 120

P.L. 86-36
EO 3.3b(3)

76. TWX, 6920th SG to USAFSSLNO, FEAF, Cite TS 823, 1 Dec 1951.
s.d. 215.

* The tactics (approach) employed by the U.S. aircraft were influenced by Team I operations during early November. The area concerned was in MIG alley. Hence, the U.S. aircraft avoided the approach covered by the Russian GCI zone system by proceeding to the target area east of Chang Chun and approaching from a northerly direction. Pilots on the mission reported approximately 200 MIG's flying top cover for the strike. (Information about tactics employed furnished by Major Lewis D. Nixon).

** See Chapter III, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

199

miles and an altitude of 36,000 feet. Aircraft were normally spotted by the EW radar in the vicinity of Pyongyang. However, there was evidence that an EW station was located at Pyongyang which spotted UN aircraft as soon as they were airborne and then relayed the information by landline to one of the reporting stations which relayed it to the control center located at Antung.⁷⁷

Although the USAFSS units in Korea were transferred to the 15th RSM on 19 January 1952 and Detachment 13 was redesignated Detachment 151, the TACOMINT service rendered by the units continued to be somewhat the same until late March and early April 1952. By the latter date, developing concepts as well as developing facilities ushered in a new era of TACOMINT operations. Primarily, this new concept of Close Support operations, which will be fully discussed in succeeding chapters, was designed to more fully exploit COMINT in air operations and, at the same time, provide greater security for the source of information. A prerequisite to the above type of operations was the consolidation (collocation) of Detachment 151 facilities. Thus, it was decided to concentrate the facilities of Detachment 151 at Chosen Christian University, near Seoul. This area would provide ample housing facilities and sufficient real estate for construction of a good antenna farm,⁷⁸ another factor influencing the relocation of Detachment facilities.

77. Hq USAFSS RU-AIR-TIS-17.

78. Historical Data Report, 15th RSM, 1 Jan-31 Mar 1952.

~~TOP SECRET EIDER~~

105

~~TOP SECRET EIDER~~

Ferret Coverage Service. Aside from the timely tactical support supplied by the USAFSS TACOMINT service in Korea, the TACOMINT operations also contributed to the success of the Ferret program in the Far East. As soon as FEAF began to operate frequent Ferret flights within range of Russian radar,* the 1st RSM began to monitor and report Soviet reactions which were registered in COMINT. At first, the RSM acted alone in this effort. However, when theater interest became sufficient, the RSM, in conjunction with ASAPAC and Navy, developed a plan whereby RSM would receive the reports from ASAPAC and Navy to augment the RSM intercept.** The primary reason why the 1st RSM took the initiative in establishing this joint project was because Army and Navy assignments were iron-clad.*** Hence, they could not alter their mission assignments to include these special cases. 79

By late summer 1951, AFSA and USAFSS had become actively interested in the Ferret coverage project. Therefore, it was decided to place this

79. TWX, 1st RSM to CG, USAFSS, Cite: TS 798, 4 Sept 1951. s.d. 216.

* Ferret missions were resumed in late May 1950.

** According to the available records and information supplied by 1st RSM personnel of that era, this Joint Ferret project was one of several worked out by ASAPAC, Navy and RSM on an effective but informal basis in recognition of tactical vs strategic concepts of operation.

*** The 1st RSM had developed a great deal of flexibility (Theater response) in its intercept coverage long before Hq USAFSS began to control intercept in a detailed manner. Although this early joint effort was informal, it was deemed effective.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

201

inter-service cooperation on a formal basis. It was further agreed by AFSA and USAFSS that the 1st RSM should take the lead in implementing the joint monitoring effort, which would cover ECM flights in the Alaskan area as well as the Far East. Hence, the overall reports would be based on reactions noted by ASAPAC, Navy, the 3d RSM and the 1st RSM. Since the 1st RSM was scheduled to take the lead in the joint project, it was recommended that the 1st RSM perform the overall analysis and reporting. This information was passed on to the 1st RSM on 1 September 1951 by USAFSS with instructions to proceed with the implementation of the joint effort.⁸⁰ Also, USAFSS instructed the RSM to arrange for adequate RDF coverage of all the Ferret flights and to use PVO positions and one position covering 25x3 Search for coverage of the FEAF Ferret missions.*

P.L. 86-36
EO 3.3b(3)

At this point, in planning for the coverage, USAFSS believed that the possibility of interception of the Ferrets by enemy aircraft would force special emphasis to be placed on R/T coverage during flights.⁸¹ On the other hand, the 1st RSM pointed out to Headquarters, USAFSS that all of its voice positions except one were considered by the theater as being iron-clad assignments. Further, the RSM stated that FEAF

80. TWX, CG, USAFSS to CO, 1st RSM, Cite: OCD-1-SZ 310, 1 Sept 1951. s.d. 217.

81. Ibid. s.d. 217.

* Coverage of the AAC Ferret missions was to begin later in September.

~~TOP SECRET EIDER~~

106

DOCID: 3737095

202

~~TOP SECRET EIDER~~

frequently placed three ECM flights simultaneously in different areas. Then, the 1st RSM requested permission to divert a position on regular assignment to PVO coverage if necessary.⁸² Therefore, USAFSS authorized the 1st RSM to use five positions for Ferret PVO coverage of the Far East based ECM flights. These positions were in addition to the squadron position. Moreover, USAFSS instructed the RSM to disregard RDF coverage of Ferret frequencies, but to alert voice intercept facilities as the Ferrets approached sensitive areas if interception were deemed probable.⁸³

As for the coverage of the AAC Ferret flights, USAFSS authorized the same coverage precedence for them as it accorded the FEAF flights. This decision was based on the knowledge that some AAC missions would penetrate as far south as Japan. Concerning the Far East coverage effort, USAFSS informed the 1st RSM that:⁸⁴

This Hqs and AFSA have agreed that you take lead in necessary coordination at field level, with ASAPAC and USM 39 in collecting info and processing Ferret results at field level for immediate passing to FEAF and ZI. You will submit details of your plans for collecting, processing and the immediate disseminating Ferret results to FEAF and ZI.

82. TWX, 1st RSM to CG, USAFSS, Cite: TS 798, 4 Sep 1951. s.d. 216.

83. TWX, CG, USAFSS to CO, 1st RSM, Cite: OCD-1-SZ 380, 6 Sep 1951. s.d. 218.

84. Ibid.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

203

The joint Far East Ferret effort was considered by ASAPAC, Navy and the 1st RSM on 7 September. It was decided that warning of ECM or Ferret flights would continue to be passed simultaneously to ASAPAC, Navy and USM 36. Neither ASAPAC nor Navy could commit their units to pass raw traffic to the RSM on an OP basis at that point so that the required reaction report could be produced and disseminated. However, indications of tie-in, giving pertinent details, would be sent to the 1st RSM by wire.⁸⁵ Consequently, the RSM recommended to USAFSS that the interim arrangement be accepted as sufficient until the program could be developed further. The RSM suggestion was approved by USAFSS on 11 September.⁸⁶

P.L. 86-36
EO 3.3b(3)

On 12 September, AFSA advanced its decision relative to coordination of COMINT coverage for AAC Ferret flights. Further, AFSA agreed that such coordination should be performed at the 1st RSM and recommended that pertinent technical data collected in 25x3 by the 3d RSM, USN 13 and USM 7 be forwarded via teletype by the 3d RSM to the 1st RSM. Also, AFSA suggested that the 3d RSM prepare to coordinate the collection and analysis of the 25x3 material in the future.⁸⁷ Two days later AFSA assured USAFSS that ASAPAC and Navy would render all assistance

85. TWX, 1st RSM to CG, USAFSS, Cite: TS 840, 9 Sep 1951. s.d. 219.

86. TWX, CG, USAFSS to DIRAFSA, Cite: OCD-1-SZ 454, 11 Sep 1951. s.d. 220.

87. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 42906, 12 Sep 1951. s.d. 221.

107

~~TOP SECRET EIDER~~

DOCID: 3737095

204

~~TOP SECRET EIDER~~

necessary to provide the 1st RSM with pertinent intercept data to achieve proper coordination.⁸⁸

Thus, within 15 days the agreement for joint, coordinated coverage and central reporting of a functional nature had been achieved for the Ferret program. These agreements were developed into the following proposed plan of operations which was advanced by AFSA on 23 September 1951.⁸⁹

1. Centralize all COMINT effort related to AAC flights at the 3d RSM. AAC would notify the 3d and 1st RSM's prior to each AAC flight, and the 3d RSM would alert its Detachments, USN 13 and USN 7. The 1st RSM would alert its stations, ASAPAC and USN 39.

P.L. 86-36
EO 3.3b(3)

2. The 3d RSM would receive post flight data from AAC and reaction data via teletype from its Detachments, USN 13 and USN 7.* The 1st RSM would receive similar data from its Detachments, ASAPAC and USN 39, process the data and forward it via teletype to the 3d RSM.

3. The 3d RSM would process the traffic collected in 25x3 consolidate it with the 1st RSM analysis, and pass the results to AAC, and to FBAF if the Soviet reactions concerned southern portions of the flights.

88. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 43357, 14 Sep 1951. s.d. 222.

89. TWX, DIRAFSA to CG, USAFSS, Cite: ARL 44753, 23 Sep 1951. s.d. 223.

* This data would include all warning traffic or teletype summary of traffic contents and any other type of traffic which reflected reactions to the AAC activity.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

205

A similar procedure was recommended for coverage and reporting of FEAF flights, except that the 25x3 collection stations would not participate in coverage and reporting of the FEAF missions. This recommendation was based on the belief that very little pertinent traffic would be intercepted by the Northern stations. On 28 September USAFSS concurred with the plan with the following exceptions:⁹⁰

P.L. 86-36
EO 3.3b(3)

1. That all completed ECM reports of analysis be forwarded to AAC and FEAF and that all collected material 25x3 be exchanged by the 1st and 3d RSM's regardless of the amount if it concerned their respective areas.

As for the COMINT coverage of Ferret flights, it soon proved its value as well as its ability. By early October 1951, the preliminary reports from the 1st RSM Detachments were arriving at the RSM within 30 minutes after completion of the missions. Under normal conditions, the preliminary reports were integrated and disseminated to FEAF and other recipients within one hour after estimated completion of the flight.⁹¹ Further, the reactions intercepted during October 1951 had indicated that the Soviets knew the routine routes followed by the flights. These reactions also indicated that at least one attempt had been made by the Soviets to intercept a flight.⁹² Moreover, by

90. TWX, CG, USAFSS to DIRAFSA, Cite: OCD-1-SZ 789, 28 Sep 1951. s.d. 224.

91. TWX, 1st RSM to CG, USAFSS, Cite: TS 143, 11 Oct 1951. s.d. 225.

92. TWX, 1st RSM to CG, USAFSS, Cite: TS 241, 18 Oct 1951. s.d. 226.

~~TOP SECRET EIDER~~

108

DOCID: 3737095

206

~~TOP SECRET EIDER~~

29 October, the Commanding General, FEAF BomCom had expressed his appreciation for the successful follow-up or surveillance reports and for the COMINT coordination with ECM-Recon activity near Communist territory.⁹³

During November and December 1951, 18 ECM and 4 photo recon flights were flown in the Far East. However, traffic revealed Soviet reactions to only four missions in November and two in December. Naval and main PVO nets reported three of the November flights very accurately. Furthermore, analysis of the reactions during the final quarter 1951 disclosed the overall efficiency of Soviet air defense was gradually increasing.⁹⁴ During the first quarter of 1952, an increase in reactions to ECM activity was noted. One flight in northwest Korea, Vladivostok and the South Olga areas, was tracked for two hours and 40 minutes south and east of Vladivostok. Another flight was tracked from a point northeast of Sovetsraya Gavan to a point southeast of Olga, a distance of 842 nautical miles.* The Soviet plotting agreed, in most instances, with the actual positions of the ECM aircraft.⁹⁵

93. TWX, DIRAFSA to Hq, USAFSS, DTG 29050Z Oct 1951. s.d. 227.

94. Historical Data Report, DCS/Operations, Oct-Dec 1951. EX 3053.

95. Ibid., Jan-Mar 1952. EX 3859.

* During this period, the Baltic Ferret flights were resumed and drew a greater reaction from the Soviets than did the Far East flights.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

207

Meanwhile, by late December 1951, the Air Defense Wings and particularly the 311th Air Division* had indicated an interest in this early warning capability of TACOMINT. By February 1952, the 311th Air Division had an operational AFSSLNO and was receiving COMINT** which the Division desired to employ as protection for its recon aircraft.⁹⁶ Early in March 1952, at the request of FEAF, representatives from the 6920th Group and the Japanese Air Defense Force (JADF) met and worked out a coordinated plan for employing TACOMINT as an early warning media for reconnaissance aircraft. Generally, the plan adopted was as follows:⁹⁷ USAFSS units would pass a coded warning by telephone to AC&W units at Misawa and Wakkanai whenever intercept indicated a recon aircraft was the target of enemy fighters.*** This warning would then be passed in another code by the AC&W unit over radio to the aircraft concerned.****

96. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 11, 26 Feb 1952. s.d. 228.

97. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 12, 11 March 1952. s.d. 207.

* The 311th AD later became the Japanese Air Defense Force.

** This information was viewed as low-level or Tactical COMINT.

*** This plan for utilization of TACOMINT will be discussed further under Project "Bittersweet" in this study.

**** By this date AFOIN had drafted a proposed TACOMINT regulation. However, USAFSS viewed the proposal as too rigid for tactical situations and revised the proposed regulation. The revision was believed to be warranted under the terms of the BRUSA Agreement.

~~TOP SECRET EIDER~~

109

~~TOP SECRET EIDER~~

Moreover, the collection and processing procedures employed in the ECM coverage program were refined by February 1952. Actually, the modification, advanced by Headquarters, USAFSS, was designed to aid control and provide a more complete analysis of Russian and Chinese PVO reactions to ECM and Ferret flights. Hence, the Group was instructed to prepare a map of the general area of interest during such flights, indicating all radar stations locations and their respective areas of coverage. Permanent call signs and unchanging frequencies were also to be noted on the map. The call signs, frequencies and net notations of the plotted stations were to be maintained on a supplement to the map. Therefore, upon receipt of a pre-flight notice, the map and supplement for the area of interest would become a control tool. The flight could be followed and the intercept operators could be alerted to the correct frequency and callsign by anticipatory action. Also, USAFSS instructed the Group to monitor the control stations of the enemy nets involved, in order to observe any inter-net communications for the alert of any other area concerned.⁹⁸

Developmental Intercept Effort: This activity admittedly pre-dates the outbreak of the Korean action. Also, it includes several approaches ranging from employment of new techniques to the design of new equipment. However, this discussion will be restricted to airborne

98. Ltr., Hq, USAFSS to CO, 6920th SG, Subj: Electronic Counter Measure and Ferret Mission Coverage Procedures, 11 Jan 1952. s.d. 229.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

209

and shipborne search and the VHF program.

Actually, the Airborne Intercept Project was initiated by USAFSS in August 1950 at the request of the Chief, Supplemental Research Branch, USAF. The original USAFSS plan envisioned a C-47 aircraft with 15 positions (10 voice and 5 C/W) installed aboard. This Headquarters, by late December 1950, had changed its original plan and had requested an RB-50 to "intercept foreign and enemy radio transmissions in the medium, high, very high and ultra high frequencies."⁹⁹ Nevertheless, an RB-29 was approved for the project early in 1951 and transferred to Kelly AFB late in June 1951 for modification. This platform was scheduled to support six intercept positions. These positions would be designed to cover frequency range from 15KC to 600 MC AM and from 2 to 600 MC FM. The operational test was scheduled to be a joint task between USAFSS and APG. It was designed to determine if signals which were inaudible at ground level were audible at higher altitudes.¹⁰⁰

Meanwhile, by March 1951, the voice effort in the Far East had begun to influence the USAFSS airborne intercept plans. In an attempt to satisfy urgent theater (FEAF) requirements* USAFSS instructed the 1st RSM to place some intercept operators aboard an aircraft used by the

99. Historical Data Report, Directorate of Operations, Hq, USAFSS, Apr-Jun 1951. SAG 1428.

100. Ibid., Jul-Sept 1951. EX 1952.

* These requirements were for the nationality of the MIG pilots and the effectiveness of enemy GCI. See Voice Effort, Chapter III, this Study.

110

~~TOP SECRET EIDER~~

DOCID: 3737095

210

~~TOP SECRET EIDER~~

136th Communications Security Squadron. Since the aircraft did not have the required space and flew missions over enemy territory, the proposed plan was precluded.¹⁰¹ Nevertheless, FFAF requested USAF to furnish an aircraft to the Combat Cargo Command (315th Air Division) for utilization by the 1st RSM as an airborne intercept station. At the same time, FFAF requested that the aircraft be modified under the supervision of USAFSS to provide 8 intercept positions.¹⁰² Concurrently, USAFSS requested permission from SAC to place one intercept operator aboard Ferret aircraft in the Far East.¹⁰³ However, the immediate airborne intercept plans were suspended temporarily in April in an effort to develop Team I capability.¹⁰⁴ Furthermore, the USAFSS RB-29 was not given its operational test until the early summer of 1952.

As for the VHF and, to a certain extent, low frequency problem, very little was accomplished in this field during the period under consideration, although it was assumed that certain transmissions in the Korean-Manchurian area were being missed by intercept facilities.

101. TWX, 1st RSM to Hq, USAFSS, Cite: TS 282, 26 Mar 1951. s.d. 230.

102. TWX, USAFSSLO, FFAF to USAFSS, Cite: TSW 155, 27 Mar 1951. s.d. 231.

103. TWX, CG, USAFSS to D/I, USAF, Cite: ODO SZ 553, 28 Mar 1951. s.d. 232.

104. TWX, 1st RSM to USAFSS, Cite: TS 434, 12 Apr 1951. s.d. 233.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

211

As early as July 1951, Detachment 13 performed a thorough search of the VHF band with negative results. Consequently, it was concluded that VHF was not being employed in the Korean-Manchurian area.¹⁰⁵

Again, in the early fall of 1951, Team I experimented with VHF intercept equipment, but did not obtain any favorable results.

During late December, limited VHF search was conducted at a temporary site at Wakkanai. Both the R/T and C/W effort proved negative.¹⁰⁶

As for the low frequency effort on the part of the USAFSS units in the Far East, it resulted primarily from a FEAF request that the "6920th Group ascertain if operational information is being passed by the Chinese air nets in Manchuria, utilizing voice transmissions or low powered C/W which cannot be heard from the Seoul area."¹⁰⁷

Also, FEAF requested COMNAVFE to permit the Group to place a small intercept team aboard a Navy ship to perform the search. The authority was granted and a small team was placed aboard the USS-Gurke at Inchon on 19 February 1952.¹⁰⁸ The ship cruised its target area (39° 15' N 124° 0'E) on 20 and 21 February. The results of the low power search

105. TWX, 1st RSM to SSLO, FEAF, Cite: HM 413, 3 Sept 1951. s.d. 234.

106. TWX, 6920th SG to CG, USAFSS, Cite: TS 287, 28 Dec 1951. s.d. 235.

107. Ltr., Hq 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 10, 11 Feb 1952. s.d. 205.

108. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 11, 26 Feb 1951. s.d. 228.

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were negative. Nevertheless, the G-2, FEC expressed a desire for continuation of the shipborne intercept search early in March 1952. Therefore, the CINCPAC representative agreed to prepare a request to the Navy through General Ridgeway for a suitable, fast, well-armed vessel for 30 days, to carry six positions. The preliminary search was to be conducted off Vladivostok, Antung, Dairen, Tsingtao, Shanghai and, if possible, Tientsin. Each service was to man one voice and one C/W position.¹⁰⁹

109. Ltr., Hq 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 12, 11 Mar 1952. s.d. 207.

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213

CHAPTER V

Consolidation Of The ChiCom Air Effort To The
Revision of NSCID No. 9

Throughout 1952 the War in Korea followed a fairly well-defined pattern in which the need for hasty or emergency measures was less urgent and the attrition rate was less-devastating. Those factors combined to create a situation wherein planned long range TACOMINT operations began to replace exigent performances. Further, the nature of the war forced additional modification of the existing TACOMINT effort, because the static pattern favored the enemy as much as the UN Forces. Hence, the enemy also had the opportunity to develop capabilities and modify techniques designed to improve its effectiveness and thwart UN Air capabilities. Therefore, the situation, from the USAFSS TACOMINT standpoint, during this period, was one in which augmentation of capabilities, reassessment of responsibilities and refinement of services were more feasible and more consistent with circumstance.

AUGMENTATION OF TACOMINT CAPABILITY

Aside from the increase in personnel strength and the rise in the experience level of assigned personnel, the augmentation of the TACOMINT capability was directed toward expansions by deployment, reorganization, development, procurement and experimentation. This effort included the deployment of additional units, reorganization

HQS USAFSS TSC No 19-09525

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Page 112 of 192 Pages
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of deployed units, development of new intercept facilities, procurement of new communications facilities, improvement of established communications facilities, investigation of additional intercept sites and development of VHF intercept.

Deployment of New Units.—By March 1952, the Security Service had completed plans to expand the 15th RSM. Concurrently, FEAF requested the 6920th Group to organize an emergency COMINT Team similar to Team I of Detachment 151, 15th RSM. The Team was scheduled to be deployed to southeast Asia or Formosa in event the war was enlarged and was scheduled to commence operations upon request from FEAF. Therefore, the 6920th Group, late in March, directed the 15th RSM to organize Detachment 152 around the emergency COMINT Team.* The Team was to be deployed to Okinawa to form the operational nucleus for Detachment 152, to relieve the operational space pressure at Headquarters, 15th RSM and to provide a deployment test for the emergency COMINT Team.¹ Personnel and Mobile equipment for an Intercept Section was deployed to Okinawa in May and the intercept operators arrived on 6 June 1952. Five C/W positions were placed in operation on the same

1. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semi-Monthly Progress Report Number 12, 11 March 1952. s.d. 207.

* The activation of Detachment 152 was a normal deployment activity in accordance with the USAFSS Master Plan, and the Emergency Team participation was incidental activity. Information furnished by Mr. Edwin B. Bell, Intercept Analyst, DCS/Operations, Headquarters USAFSS. Mr. Bell was employed as an analyst in the 6920th Group at that time.

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215

day. One other C/W position was added by 30 June 1952.² After Detachment 152 was organized, the emergency Team was reorganized and equipment was maintained in a state of readiness at Headquarters, 15th RSM.³ Detachment 152 began intercepting Chicom traffic both [25x3]. However, the traffic was transmitted to the Group for processing. Later, some [25x3] military intercept was added at Detachment 152 as an NSA assignment.

P.L. 86-36
EO 3.3b(3)

The advanced unit of the 29th RSM was deployed during the fall of 1952. This unit, deployed to Clark AFB, P.I., began intercept operations with three C/W positions on 7 October. Although these positions were on a training status, they soon proved that intercept of [25x3] was very favorable. During the early period of operations, the three positions were kept busy copying [25x3] because the cases proved very prolific. Traffic analysis backup required for control of the intercept effort was furnished by an ASA unit located nearby. At that point, the 29th RSM had not established an Analysis Section. Analysts assigned to the RSM had been sent to the 6920th Group to learn Group T/A procedures and to become current on [25x3] assignments.⁴

2. Monthly Status Report, 15th RSM, Jun 1952. EX 3342.

3. Ibid., July 1952. EX 3535.

4. Ibid., 29th RSM, Oct 1952. EX 4579.

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113

~~TOP SECRET EIDER~~

Reorganization of Established Units. Detachment 12 of the 1st RSM was reorganized on 1 April 1952. This action was somewhat administrative in nature and resulted from logistic problems. In essence, Detachment 12 was deactivated and the facility was redesignated Operations "B" of Detachment 11. Detachment 11 was already furnishing logistic support for Detachment 12 as a result of Detachment 12's remote location.⁵ After redesignation of Detachment 12, which was operating three voice and two C/W positions and one experimental VHF site, Operations "B" was augmented by four C/W and one voice position. Detachment 11 also increased its intercept capability by three C/W, one voice and one DEN-17 position.⁶ The DEN-17 unit was transferred from Ashiya to Misawa because reception of assigned targets was better at Misawa.*

Survey of Additional Sites. During April 1952, the 6920th Group investigated the possibility of establishing an AFSS effort in Indo China and Formosa. The possibility of establishing such a unit in Indo China proved too remote, however, primarily because of Air Force planning and the French attitude toward increasing American strength

5. Historical Data Report, 1st RSM, Jan-Mar 1952.

6. Ibid., Apr-Jun 1952.

* The Group RFP and RP effort was developed during this period to augment regular intercept. However, this capability was not specifically applicable to targets affecting the COMINT effort in Korea. Therefore, a detailed account of this effort is omitted.

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couriered to 5th Air Force. However, the inherent delay in courier methods was robbing the majority of the information of its utility value.⁹ This circuit was installed in January 1952 and was operated until early July 1952. At this time, Headquarters USAFSS objected to the linkage of a field COMINT unit with a consumer and directed the Group to eliminate the circuit.¹⁰ The Group then pointed out to USAFSS the necessity for such a circuit and requested USAFSS to rescind the policy.¹¹

Nevertheless, USAFSS replied that the basic COMINT policy was to protect the source of the material at all costs. Hence, direct communications between an SSO and a field unit (USAFSS) was precluded. Then, USAFSS instructed the 6920th Group to ascertain the availability of a circuit from Group to 5th Air Force, for transmittal of the Weather information.* Also, USAFSS agreed to supply a crypto system for such a circuit.¹² Although the Group viewed the policy as being inharmonious with the requirements of a tactical COMINT mission, it directed Detachment 151 to eliminate the direct circuit to 5th Air Force.

9. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 19, 28 June 1952. s.d. 237.

10. TWX, 6920th SG to CG, USAFSS, Cite: AF 816, 12 July 1952. s.d. 238.

11. Ibid. s.d. 238.

12. TWX, CG, USAFSS to CO, 6920th SG, Cite: OI-22833, 21 July 1952. s.d. 239.

* When Detachment 151 moved its communications center to Chosen University, only a pony circuit with a Baccus System linked the Detachment and 5th Air Force. The Baccus System was not approved for weather traffic.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

219

Subsequently, the Director of Intelligence, 5th Air Force, instructed Detachment 151 to reinstall the circuit. However, FEAF supported the Group directive and the circuit was eliminated in August 1952.^{*13} Nevertheless, the Director of Intelligence, FEAF, took the problem up with Headquarters, USAFSS. However, the circuit was not reinstalled until early November 1952, at which time USAFSS authorized the action^{**} and recorded a protest to AFSA^{***} relative to the basic policy which prevented such circuits.¹⁴

Communications for Detachment 151 were also improved during this period. In July an AN/GRC-26 was installed at Ashiya as the southern terminus of the Seoul-Ashiya radio teletype link. Therefore, the Detachment traffic could be tape relayed by Ashiya to Johnson AFB (Group). Also, in November, an AN/GRC-26 was installed on Cho Do so that the advance Team could transmit its raw data back to Detachment Headquarters at Seoul.

Concurrently, negotiations for a direct circuit from Johnson AFB to Brooks AFB were begun. It was soon determined that RCA Communications, Incorporated, could furnish a circuit from Tokyo to San Francisco, but other arrangements would have to be made from Johnson to Tokyo and

13. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 22, 12 Aug 1952. s.d. 240.

14. TWX, CG, USAFSS to CO, 6920th SG, Cite: ODC-23941, 30 Oct 1952. s.d. 242.

* This incident actually aided in crystallizing the opinion that TACOMINT units should be under the operational control of the Tactical Air Commanders. Later, this opinion developed to a status wherein it was actually suggested that TACOMINT service to Tactical Air Forces be made a function of AC&W Service.

** Because of the shortage of specified equipment, the circuit did not get back into operation until January 1953.

*** AFSA had also pointed out the producer-consumer association in the above operation.

~~TOP SECRET EIDER~~

115

~~TOP SECRET EIDER~~

from San Francisco to Brooks. Therefore, FEAF agreed to provide a metallic pair (a two-wire land line channel) from Johnson to Tokyo. This pair could be carrier-loaded to provide the Group with channels to the new RCA circuit terminal in Tokyo. This technique would also supply the Group with a channel to the Tokyo terminal of the circuit from the 29th RSM. At that point, the circuit from the 29th RSM to Tokyo was being tested. It was to be released to the Group later in August.¹⁵ P.L. 86-36
EO 3.3b(3)

The improvement in existing communications facilities was related to changes in techniques and associated equipment in use. It resulted in part from the attempt to solve timely reporting problems, particularly from Wakkanai. By May 1952, the circuit from Wakkanai to Misawa to Johnson was an AN/GRC-26 link, operating direct from Wakkanai to Johnson. On 7 May a second AN/GRC-26 was installed in the circuit at Misawa. However, shortage of associated equipment, i.e., crypto equipment, prevented Misawa from decrypting or encrypting messages in the system used at Wakkanai and Johnson. In other words, the Misawa terminal could not serve as a relay point in the Johnson 25x3 circuit. Subsequently, the Johnson-Wakkanai circuit was tested for circuit reliability, signal strength, etc. The test indicated that the outage time could be reduced by installing a tape relay at Misawa.*

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15. Ltr., Hq 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 22, 12 Aug 1952. s.d. 240.

* Information furnished by Captain Warren G. Haugen, Command Communications Office, Hq, USAFSS. Captain Haugen was Group Communications Officer at that time.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

221

This relay was installed on 5 June 1952, thus improving the circuit efficiency, or actually resulting in two short haul circuits rather than one long haul circuit.¹⁶

Meanwhile, the timely requirements for certain types of raw data and weather information exerted a great deal of influence on current circuit or communication procedures of this period. During July 1952, it was determined that a better Crypto system was needed on the Johnson-Wakkanai circuit. This circuit carried high priority voice and PVO traffic, which was sometimes delayed several hours by the cumbersome crypto system in use. Therefore, the Group requested an ASAM 2-1 system for the circuit.¹⁷ Hence, a PYTHON system was placed in use on the circuit during July.¹⁸

The problem of timely transmission of weather information was also aggravated in July 1952. At that time, instructions were issued which limited on-line APOLLO operations to two sets during any one 12-hour crypto period. The Group circuits affected by this policy were not stable enough to stay in synchronization for that length of time. After two days of heavy outage the Group took emergency action to replace on-line operations with off-line facilities.¹⁹ Further, the

16. Historical Data Report, Detachment 11, 1st RSM, Apr-Jun 1952.

17. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semi-monthly Progress Report Number 19, 28 Jun 1952. s.d. 237.

18. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 21, 28 Jul 1952. s.d. 241.

19. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 19, 28 Jun 1952. s.d. 237.

~~TOP SECRET EIDER~~

116

~~TOP SECRET EIDER~~

Group was forced to decentralize Weather processing functions by sending a Weather Team to Ashiya to process weather intercept on the spot.²⁰

In respect to this problem, it was evaluated as follows by the 6920th Group during August 1952:²¹

Recent developments, crypto-wise, indicate our present crypto systems are far from adequate. The major considerations are security, speed and reliability. All of our present authorized systems lack one or more of these. The available circuits overseas are of inferior quality. Our business demands the ultimate in speed. Personnel shortages dictate a system requiring a minimum of cryptographic operators. Security is paramount with our poor circuits, a synchronizing system for on-line equipment is required. Off-line systems slow traffic and are more expensive in manpower and equipment.

P.L. 86-36
EO 3.3b(3)

Development of the VHF Effort. Preliminary ground and shipboard tests or search for VHF and LF transmissions were conducted prior to the period covered by this chapter. However, these investigations were expanded and continued throughout 1952. Early in March a second and larger shipboard test was organized. Actually, this test resulted from an incident which occurred in December 1951. On 25 December 1951,

25x3

had been very valuable to the TACOMINT service, it was decided to attempt to determine: (a) if the net had converted to land-line

20. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 22, 12 Aug 1952. s.d. 240

21. Ibid.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

223

operations (later confirmed) or (b) if [25x3] had reduced transmission power on HF, or (c) if [25x3] had converted to VHF (viewed as unlikely for ground/ground transmission) or (d) if the net had been discontinued altogether. Hence, the primary mission of the shipboard test was to investigate the possibility of low-power HF transmissions on the [25x3] net. The secondary mission was to search for VHF transmissions.*

P.L. 86-36
EO 3.3b(3)

The shipboard intercept effort was composed primarily of 6920th personnel and two or three Navy personnel. The party also included a capability for Russian and Chinese Voice and C/W intercept. The first phase of the test was conducted during April 1952 in the vicinity of VLADIVOSTOK and the second phase was conducted off the China Coast between SHANGHAI and DAIREN. Aside from ascertaining various technical facts about an operation of that nature, the test produced only normal traffic.²²

The VHF effort on the part of the Group and its subordinate units continued to be of an experimental nature. During late April, Detachment 151 began a test or VHF search effort on Cho Do. However, the results were negative. By early summer of 1952, it had become apparent that [25x3] were converting certain communications facilities

22. Ltr., Hq, 6920th SG to Operations Officer, Subj: Preliminary Report Shipborne Intercept, Vladivostok Area, 25 Apr 1952. s.d. 243.

* Information furnished by Major Robert O. Brooks.

~~TOP SECRET EIDER~~

117

~~TOP SECRET EIDER~~

to VHF, especially the air/ground and ground/air communications. These were the communications which provided the greatest amount of TACOMINT. Thus successful exploitation of these communications was paramount if effective TACOMINT service was to continue. Since the Group and its units did not have the necessary equipment or VHF experience to effectively cope with the problem, these units began experimenting with locally constructed special antennas and began searching for VHF transmissions.

During the early part of August 1952,* the VHF search effort was reactivated on Cho Do Island in the Korean Bay. This site was nearer, comparatively speaking, to the suspected VHF transmissions relative to GCI activity. About one month later VHF signals were intercepted at Cho Do on [25x3] and thereby confirmed the suspected [25x3]

P.L. 86-36
EO 3.3b(3)

[25x3] In addition, a VHF search activity was organized by the 1st RSM at Wakkanai. This effort proved non-productive.²³

It did, however, indicate further need for modification of current VHF intercept equipment.**

Consequently, the Group began fabrication of a search antenna system for the UHF-VHF BC-1269 receiver. This UHF-VHF search system, a combination C/W and Voice position, was completed early in June and

23. Monthly Status Report, 1st RSM, Mar 1952. EX 2615.

* During July 1952, Detachment 151 intercepted VHF transmissions. However, it was not until September 1952 that VHF intercept proved prolific.

** This equipment consisted of a BC-787 receiver and the RC-173 antenna equipment. The unit proved to be omni-directional with an extremely low-gain factor.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

225

installed at Wakkanai. The position began operating on a rotating, sample search basis employing two receivers. One, a BC-787, covered the band from 24 to 145 MCS and used a modified antenna system designed for that receiver. The other, a BC-1269A, covered the band from 145 to 600 MCS. It used a horizontally polarized bi-directional fan antenna and a vertically polarized non-directional fan antenna. Both antennas were constructed from sheet aluminum.²⁴ Nevertheless, by November 1952 the effort was not too productive.

Meantime, the USAFSS airborne approach to the VHF problem became airborne during this period. The USAFSS airborne intercept platform (an RB-29) underwent its operational tests at Eglin AFB during April-June 1952. This test confirmed the belief that signal strength in line-of-sight transmissions would increase as the altitude of the intercept platform increased. The test also indicated that a new type of recorder was required for Voice intercept.²⁵ Following the operational test, the aircraft and personnel were sent to the Far East to perform a test against suspected enemy targets. The aircraft arrived in Japan on 30 June 1952 and flew five missions* to develop a basis for planning the experimental assignments. After the preliminary missions were flown the results were evaluated. Then, it was decided that

24. Monthly Status Report, 1st RSM, Jul 1952. EX 3951.

25. Historical Data Report, DCS/Operations, Hq, USAFSS, Apr-Jun 1952. EX 4697.

* Although the aircraft was attached to the 91st Strategic Reconnaissance Squadron, Flight plans for each mission were drawn up by members of the USAFSS crew and approved by the Director of Intelligence, FEAF. Furthermore, the intercept was hand-carried to Group Operations after each mission for processing.

~~TOP SECRET EIDER~~

113

~~TOP SECRET EIDER~~

all areas of interest would be covered at various hours of day and night at optimum flight altitudes to develop a realistic pattern of intercept. Also, some changes were made in the installed intercept capability (receivers), viz., one of the BC 1269A receivers was replaced by an ARR-7 receiver. This change was made to increase the potential in the 2 to 25 MC range. Absence of signals in the VHF-UHF range had caused the BC-1269A position to be almost useless.

Several additional missions were then flown as planned. Preliminary analysis was made on the collected data and the following conclusions were drawn.²⁶

Generally, the signals received (intercepted) by the airborne positions were more readable and possessed greater signal strength than those signals received (intercepted) by ground based positions.*

The VHF and UHF intercept equipment would tune through signals or miss them entirely because of the short duration of these signals.**

Actually, the so-called "unique traffic" collected by the Airborne effort amounted to approximately one per cent of the total "take." This low figure was believed caused by the necessity for duplicating ground station intercept missions. Moreover, upon

26. Historical Data Report, DCS/Operations, Hq, USAFSS, Apr-Jun 52.

* Two positions aboard the aircraft were duplicating certain ground station intercept missions to provide a basis for comparison.

** A receiver which gave visual presentations of VHF signals was installed and three additional missions were flown. Nevertheless, no VHF signals were intercepted.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

227

re-examination of the collected data by Headquarters, USAFSS, it was determined that the so-called "unique traffic" was standard mission traffic being copied by the 3rd RSM in 25x3. Generally, the signal strength of signals intercepted by the airborne positions was greater than the strength of the same signal intercepted by ground stations. It was also concluded that the Far East test was inconclusive from the standpoint of VHF intercept. Consequently, it was recommended that a similar test be conducted in an area where VHF transmissions were known procedures.*

P.L. 86-36
EO 3.3b(3)

Subsequent to the above activity, the 6920th Group proposed two other airborne approaches to the VHF problem. First, the Group requested 5th Air Force to allow one VHF position to be established aboard the 5th Air Force communications relay aircraft.** The object of this project -- "Blue Sky" -- was to intercept and relay Russian VHF transmission to the USAFSS ground stations for processing.

Secondly, the Group pointed out to USAFSS that YOKE 3 reconnaissance flights which approached SAKHALIN Island on the Maritime Coast, could be exploited in determining the extent the Soviets had converted to VHF in air-to-ground communications.*** At this point,

* The USAFSS Group in Europe had determined that certain Soviet MIG regiments in that area had converted to VHF for certain types of communications.

** Fifth Air Force used an aircraft to relay transmissions from the TADC at Kimpo to certain fighter sweeps and fighter-bomber missions.

*** By September 1952, VHF transmissions had appeared in Korea. However, the USAFSS airborne platform had returned to the ZI.

~~TOP SECRET EIDER~~

119

~~TOP SECRET EIDER~~

the Group requested USAFSS to arrange for the installation of a VHF position aboard the YOKE 3 aircraft.²⁷ Concurrently, USAF indicated to USAFSS that recording of communications transmission by members of Electronic Counter Measures flights would be valuable supplement to COMINT. Also, the Strategic Air Command advised USAFSS that it was standard procedure for its Ferrets to record unknown or unusual signals, but that its Ferrets did not have sufficient space aboard for the installation of a USAFSS intercept position.²⁸ Nevertheless, it was determined that the FEAF controlled Ferret crews would make such recordings and submit them to the 6920th Group for processing. In addition, FEAF agreed to furnish the Group an airborne position for VHF search.²⁹ USAFSS concurred with the FEAF Ferret plan on 22 October providing the information derived by the Group from the Ferret recordings would not be made available to the Ferret organization as normal Ferret support.³⁰

The FEAF sponsored airborne VHF search was implemented on a limited scale by December 1952.* Three airmen were placed on flying

27. Ltr., Hq, 6920th SG to CG, FEAF, Subj: Intercept of Russian VHF Communications, 8 Oct 1952. s.d. 244.

28. TWX, CG, USAFSS to USAFSS SSO, Hq, FEAF, Cite: OID-23812, 16 Oct 1952. s.d. 245.

29. TWX, SSO, FEAF to CG, USAFSS, Cite: LNF 929, 17 Oct 52. s.d. 246.

30. TWX, CG, USAFSS to USAFSS SSO, FEAF, DTG 221645Z Oct 52. s.d. 247.

* The first project "Blue Sky" mission was not flown until early February 1953.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

229

status and debriefed. One airman was attached to the 91st Strategic Reconnaissance Squadron to fly selected missions. His material was picked up by courier and delivered to the 6920th Group for processing. The other airmen were sent to Korea to participate in similar tests which were scheduled in that area.³¹

From the standpoint of combat intelligence the VHF (Soviet) traffic intercepted as of November 1952 was ancient history by the time it arrived at the 6920th Group.³² Communications facilities from Chong Do to Seoul to Ashiya were improved in November, however, and the VHF activity was reported as rapidly as the traffic arrived.³³ Nevertheless, intercept of the rapidly increasing VHF transmissions was still a problem. Also, the proposed integration of VHF and HF activity (combat) to improve TACOMINT, was pending.³⁴

REASSESSMENT OF TACOMINT EFFORT

The trend of the TACOMINT effort of this period was toward a realignment or a more clear delineation of COMINT responsibilities, particularly in regard to Air Force activity and responsibility.

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- 31. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 30, 12 Dec 1952. s.d. 248.
 - 32. TWX, 6920th SG to CG, USAFSS, Cite: SG 664, 28 Sep 1952. s.d. 249.
 - 33. TWX, 6920th SG to CG, USAFSS, Cite: AP 675, 26 Oct 1952. s.d. 250.
 - 34. Monthly Operational Status Report, 6920th SG, Oct 1952. EX 4550.

HQS USAFSS TSC No 59-09525

Copies 1 1 Copies

Page 120 of 192 Pages

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

Actually, the perennial problem of control, coordination, subordination, utilization and support of the Air Force COMINT service again conditioned or influenced the TACOMINT program in the Far East. However, the issues resolved primarily concerned higher headquarters prerogatives. Therefore, the Group continued to accomplish the tactical mission in a manner consistent with circumstance. Nevertheless, two crystallized issues,* which influenced TACOMINT or field COMINT service to Commanders, were officially disposed of during this period by AFSA and USAFSS.

Technical Support Issue Resolved. The issue of technical support, as such, was never the problem that control and processing proved to be. It was the relationship, real and imagined, of technical support to the other major problems which caused negotiations relative to solving the issue. In brief, AFSA's authority in this field was fairly well-determined and recognized by USAFSS as early as September 1949.³⁵ However, the "catch" or friction seemingly developed from the following cycle of reasoning: --"to furnish necessary technical support to field units would require processing of specific raw data. Therefore, it was necessary to control collection and process on a timely basis on all related traffic." Although coordination of technical matters between

35. Study, USAFSS-AFSA Relations, May 1949-Jan 1953, 10 Sep 1953.

* The adoption of the Intelligence Reporting Agreement by USAF and AFSA crystallized the technical support and direct communications problems. See Chapter IV, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

231

AFSA and USAFSS increased throughout 1950-51, some retarding forces continued to exist. Generally, those forces resulted from broad or ambiguous definitions in the existing agreements. Moreover, the rapid expansion of the Group concept of operations sometimes precipitated temporary discord. By early 1952, the agencies most concerned were becoming increasingly aware of the causes of the friction as well as the effects. Hence, during April-June 1952, both AFSA and USAFSS began informal and exploratory negotiations concerning further clarification of U.S. COMINT production responsibilities. In essence, these negotiations primarily concerned the definition of "technical backup" and "operational control" and the determination of the proper functional machinery to accomplishing this dual monitorship.

P.L. 86-36
EO 3.3b(3)

The informal approach was replaced by a formal one in July 1952. At that time a conference was held in Headquarters, USAFSS. The AFSA and USAFSS representatives proposed to solve the two problems by drafting an agreement which would: (a) Phase Headquarters, USAFSS, out of timely COMINT production (processing); (b) phase AFSA and 25x3 into the Technical Support activity, and (c) refine the requirements and formats for raw data reports from the field units.³⁶ As for the first objective, it was agreed that the date for full scale operation of the USAFSS Groups and independent squadrons would remain 1 July 1953. Concerning the second point, it was agreed that AFSA would be the

36. Decisions of AFSA-USAFSS Conference, 14-17 Jul 1952, 18 Jul 1952. s.d. 251.

121

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

P.L. 86-36
EO 3.3b(3)

paramount authority for TEXTA covering all intercept, except the European Russian Air cases. 25x3 would be the paramount authority for TEXTA covering this intercept. USAFSS would only fill in technical gaps as required. In connection with the third point, e.g., the raw data reporting requirements, it was agreed that the USAFSS field units would furnish AFSA, by electrical means, certain technical (analysis) digests and one control report. This refinement of existing agreements was designed to eliminate one report and reduce the length of two electrical reports.

Direct Communications Issue Resolved. In addition to defining technical support responsibilities, the above agreement, by necessity, authorized direct communications between AFSA and the USAFSS field units.* Consequently, another joint conference was held in August 1952 to define the direct communications prerogative delegated to AFSA by the July Technical Support Agreement. At that time the following definitions were adopted:³⁷

Direct Communications by AFSA is understood to refer specifically to the following categories of communications with AFSS field units. . .

37. Memo to DIRAFSA and CG, USAFSS, Subj: Interpretation of the Technical Support Agreement, 22 Aug 1952. s.d. 252.

* AFSA had been communicating with the USAFSS field units via the USAFSS Control Liaison Office in Washington. However, the technical support prerogative inherently required direct communications with the units supported.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

233

1. Changes or queries regarding AFSA 50 per cent of AFSS intercept facilities.
2. Identification of traffic which has resulted in an analysis product, to include message heading identification or confirmation by D/F.
3. The supply, by AFSA of all technical COMINT information which will assist the intercept identification or analysis effort [of the field units].
4. Queries regarding receipt, utilization, or production of technical information, as adherence to previously agreed upon formats.

Subsequently, USAFSS procured the circuits to its major overseas units. On 4 August, USAFSS advanced its policy to utilization of the circuits. Generally, this policy authorized the use of the circuits only for traffic directly concerned with support of the intelligence mission of the USAF Security Service.³⁸ Also, Headquarters USAFSS listed specific categories of traffic to be transmitted over the circuits and assigned a transmission priority to each category. Log digests were placed in the category with the lowest priority in consonance with the Air Force concept of Group processing and Early Warning Service.

By October 1952, AFSA had procured its direct circuits to the major overseas units of USAFSS. Therefore, USAFSS proposed that:³⁹

AFSS direct circuits be used to transmit finished COMINT to Brooks AFB and that AFSA requirements for such end products be relayed from Brooks to AFSA. Any remaining

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38. Ltr., Hq, USAFSS to CO, 6920th SC, Subj: Utilization of Direct Communications Circuits, 4 Aug 1952. s.d. 253.
 39. Ltr., Hq, USAFSS to DIRAFSA, Subj: Direct Electrical Communications, 9 Oct 1952. s.d. 254.

122

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

circuit time would be used to transmit log digests and raw traffic that could not be accommodated by the AFSA circuits. AFSA direct circuits would be used to transmit log digests and raw traffic to AFSA and that USAFSS requirements for such material would be relayed from AFSA to Brooks.

However, AFSA replied that it required all end products (COMINT) produced by USAFSS field units as well as log digests and raw traffic. Therefore, these products and material should be forwarded directly from USAFSS field units to AFSA when circuit time would permit. Otherwise, the USAFSS proposed procedures would apply to the situation.⁴⁰ Therefore, Headquarters, USAFSS, directed the Groups to use the AFSA direct circuits as follows:⁴¹

Transmission priority: (a) Log digests and raw traffic as directed, to include TECSUMS; (b) copies of all end products for which AFSA was an addressee.

The AFSS direct circuits would be used as previously stipulated, except that TECSUMS were reassigned to priority 3 and not classified as log digests.*

40. 1st Ind (Ibid.) DIRAFSA to CG, USAFSS, 20 Oct 1952. s.d. 255.

41. Ltr., Hq, USAFSS to CG, 6920th SG, Subj: Utilization of Direct Communications Circuits, 12 Nov 1952. s.d. 256.

* TECSUMS had replaced the Daily Situation Summaries by that date. Although the TECSUMS were nothing more than a condensation and rearrangement of raw traffic and required analytical type processing, AFSA and USAFSS required them on a timely basis. At that point USAFSS justified the electrical transmissions on the basis that they were required "by AFSS to meet the intelligence requirements of the Zone of Interior Air Commands." NSA later justified the electrical transmissions of TECSUMS on the basis that they were needed for "timely technical support." Actually, these requirements were not consistent with the concept and agreements to shift timely reporting to the field.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

235

Reporting Requirements and Procedures Modified. Throughout 1952 a great deal of effort was expended on adjustment of field reporting relative to collection and production of COMINT. This effort concerned technical (analytical) and control reports required from the field units as well as intelligence reports. However, it was primarily concentrated on technical reports needed or desired by NSA and USAFSS and the fulfillment thereof by the field units.

In essence, the trend throughout this period was toward substitution of condensed or skeletonized raw data reports for raw traffic. The trend probably recognized the rapidly developing theater processing capability. Yet, it was a specific result of inadequate communications facilities and increased collection facilities. The first series of such technical reports to be prepared and submitted by the field units were in the nature of diarized traffic. This program was begun in 1951 to satisfy Zone of Interior analysis requirements and to standardize raw data exchange techniques and formats.* By April 1952, the diarization program had been implemented to the extent that the Zone of Interior COMINT agencies were compiling a revised teletype forwarding list for diarized traffic.⁴² At that point AFSA agreed to accept one category of diarized traffic in lieu of raw traffic,** but desired

42. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD 90022, 18 Apr 1952. s.d. 257.

* See Chapter III, this Study.

** This was diarized Chicom traffic. By that time the experts were in the field.

~~TOP SECRET EIDER~~

123

~~TOP SECRET EIDER~~

that the corresponding raw traffic for another category be forwarded by teletype.⁴³

The AFSA suggestion was implemented by the Group on 20 April. Moreover, by June 1952 the Group had determined that by modifying the diarization program, the program would be beneficial to Group processing.* Therefore, the Group proposed the following system for the diarization program.⁴⁴

1. Analysts at each intercept site would diarize Russian traffic for that particular site, except USA 38B which had only one Russian position.
2. Traffic would be forwarded direct from the sites to the appropriate addressees, including the Group.
3. Diarized traffic would be worked by Group in lieu of electrically transmitted raw traffic. The courier copy would be used for backup and/or studies requiring detailed analysis.
4. Traffic would initially be diarized by one-hour periods. As additional analysts became available the period would be reduced.

43. TWX, 6920th SG to CG, USAFSS, Cite: SG 046, 21 Apr 1952.
s.d. 258.

44. TWX, 6920th SG to CG, USAFSS, Cite: AP 454, 25 Jun 1952.
s.d. 259.

* The early diarization program was viewed as "time-consuming and of little value" by the Group.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

237

This system was deemed beneficial to the Group processing because:

1. The Communications workload between the sites and the Group would be greatly reduced.
2. The workload (analytical) at the Group would be decreased thereby permitting faster processing.

By August 1952, the 6920th Group had requested a review by AFSA and USAFSS of all coverage and control reporting requirements. A review aimed at eliminating duplication of requirements of AFSA and USAFSS was initiated.⁴⁵ Subsequently, AFSA and USAFSS agreed upon a format for Technical Daily Summaries (TECSUMS). However, this series of Technical Reports was scheduled to replace the Daily Situation Summaries (DASITS) which had been required by Headquarters, USAFSS "to meet the USAFSS timely reporting commitments."⁴⁶ The TECSUMS were to be prepared at Squadron or Detachment level as was the diarized traffic. On the other hand, the TECSUMS, submitted every 24 hours, were to cover the preceding 24-hour period. Also, the cut-off date for the TECSUMS was the same at each station. Hence, the TECSUMS would arrive at the Group Communications Center about the same time and overload the facilities. As a result of the above factors,

45. TWX, CG, USAFSS to CO, 6920th SG, Cite: 92117, 26 Aug 1952. s.d. 260.

46. TWX, CG, USAFSS to DIRAFSA, Cite : ODD-23823, 17 Oct 1952. s.d. 261.

~~TOP SECRET EIDER~~

124

~~TOP SECRET EIDER~~

part of the information in the TECSUMS would be 40 hours old by the time it arrived at Group. The most timely information included therein would be approximately 12 hours old.

In order to process intercept on a timely basis, the Group needed the TECSUMS at much shorter intervals. Therefore, the Group informed USAFSS early in December 1952 that the TECSUMS would be submitted to Group by the Detachments every six hours, and in the case of tactical air/ground traffic, the TECSUMS would be submitted as each aircraft series went down. Simultaneously, the Group pointed out that Theater and Zone of Interior requirements would force the Detachments to submit TECSUMS on a six-hour and 24-hour basis.⁴⁷ Thus, the Group requested USAFSS to consider accepting TECSUMS required by the CIOP for periods less than 24 hours.⁴⁸

This proposal was forwarded to AFSA, which had become the National Security Agency (NSA), by USAFSS.⁴⁹ However, NSA deemed the 24-hour TECSUM of prime importance. Furthermore, USAFSS informed the Group that the TECSUMS should be prepared and transmitted from the point of intercept to the consumers as was the diarized traffic. In addition, USAFSS stated that the provisions of the TECSUM CIOP were designed to supply traffic sufficiently current for timely processing by the

47. The divergence between NSA and USAFSS requirements placed on the Group sometimes resulted in unnecessary production burdens, a fact which was recognized and emphasized by a Special Survey Team sent from Hq USAFSS to the Far East Group in November 1952. (See Appendix B, Trip Report, Subj: Report of Visit to 6920th SG, 9 Feb 1953. TSC 573).

48. FWX, 6920th SG to CG, USAFSS, Cite: SG 163, 2 Dec 1952. s.d. 262.

49. TWX, CG, USAFSS to DIRNSA, Cite: OAD-1B-96037, 23 Dec 52. s.d. 263.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

239

Group. The prime reason for requiring the 24-hour TECSUM, as expressed at that point, was non-receipt of all parts of a TECSUM in case the TECSUMS were transmitted at more frequent intervals.⁵⁰

Actually, the Group did not have the necessary capability to adequately man the detachment processing units. Moreover, the Group was opposed to this decentralization of timely theater processing. Therefore, the Group again requested that NSA accept the TECSUMS covering periods less than 24 hours, which would allow the Group to meet its theater requirements without duplication of analysis and communications effort. Also, the Group pointed out that the high quality of the recently installed direct circuit from Japan to the Zone of Interior would eliminate much of the previous loss and delay of message parts, i.e., the non-receipt of parts of TECSUMS transmitted at short intervals.⁵¹

The Group's position and recommendations on TECSUM reporting were referred to NSA by USAFSS with a request that the problem be reconsidered.⁵² Nevertheless, no action on the problem was immediately recorded.* Therefore, the Group, as an alternative to the prescribed procedures, chose to have the traffic transmitted twice from the point of intercept. The first transmission was made at various short intervals during the 24-hour period to permit timely processing by Group. The second transmission

50. TWX, CG, USAFSS to CG, 6920th SG, Cite: OAD-1B-24344, 15 Dec 52. s.d. 264.

51. TWX, 6920th SG to CG, USAFSS, Cite: SG 478, 18 Dec 52. s.d. 265.

52. TWX, CG, USAFSS to DIRNSA, Cite: OAD-1B-96037, 23 Dec 52. s.d. 263.

* The Group did receive permission to prepare the TECSUMS at Group level during January 1953.

~~TOP SECRET EIDER~~

125

~~TOP SECRET EIDER~~

made at the end of the intercept day to meet the Zone of Interior requirements.

Although the TECSUM Program was implemented to assist the Zone of Interior COMINT agencies in fulfilling their reporting responsibilities delegated by the Intelligence Reporting Agreement and to alleviate the technical reporting load, it actually created another field performance problem. Further, the TECSUM program kept Headquarters, USAFSS, in the timely analysis activity because the TECSUMS required analytical type processing before they could be included in intelligence reports disseminated by Headquarters, USAFSS. The overall technical reporting (by field units) program, had increased to 13 categories of reports by 10 December 1952. In relation to these requirements, which were established by the teletype priority forwarding list, USAFSS received only two categories, i.e., the TECSUM and Daily Printer Analysis Report (DARE).⁵³

Aside from the readjustment of the technical reports requirements and procedures, the intelligence [alert] reporting on the part of USAFSS field units was modified during the period. This revision of the directive governing these reports was accomplished to eliminate the use of the term "alert" and to allow USAFSS to increase its cognizance of a situation without unduly alarming the Zone of Interior air COMINT customers. The revision was actually prompted by an alert condition

53. TWX, CG, USAFSS to 6920th SG, Cite: OAD-1-24294, 8 Dec 1952.
s.d. 266.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

241"

called by Detachment 151 to acquaint USAFSS with a communications lull in Korea. Subsequently, the CIOP directive was revised to prevent recurrence of the incident. That is, conditions "B" and "C" were changed to enable USAFSS to increase precaution or direct certain actions within the Command. Condition "A" continued to be the alertness category which would be disseminated to agencies outside the Command.⁵⁴

In connection with the intelligence reporting responsibility of USAFSS, Headquarters USAFSS advanced its reporting concept late in September 1952. At that time, USAFSS informed AFSA that USAFSS reports were tailored to meet USAF requirements and that USAFSS would closely control this activity for the following reasons: (a) USAFSS was responsible to USAF for its intelligence; (b) USAFSS was responsible for the efficiency and timeliness of intelligence produced by its units. Therefore, USAFSS would review, consolidate and disseminate the intelligence produced by its units.⁵⁵

Realignment of COMINT Weather Effort. By early June 1952, it had been determined that AFSA could satisfy the SAC requirements of SWI by-products and that AWS was responsible for determining the pure SWI requirements of the Air Force. These latter requirements would be placed on USAFSS by AWS, while the by-product requirements would be placed directly on USAFSS by the Air Commands concerned. USAFSS

54. TWX, CG, USAFSS to CO, 6920th SG, Cite: ODD 95183, 19 Nov 1952. s.d. 267.

55. TWX, CG, USAFSS to DIRAFSA, Cite: OOD-23608, 23 Sep 1952. s.d. 268.

~~TOP SECRET EIDER~~

126

~~TOP SECRET EIDER~~

would be responsible for fulfilling AWS requirements; however, USAFSS could forward certain by-product requirements to AFSA for fulfillment. Further, AWS indicated a desire to have USAFSS assume the responsibility for establishing circuits between USAFSS field units and AWS Centrals. At that time, the responsibility was a joint one.⁵⁶ USAFSS did agree to be responsible for establishing circuits to the point of delivery to AWS, but would not assume the responsibility for establishing circuits or operating terminals within the Weather centrals.⁵⁷

From the standpoint of theater (Far East) realignment of the weather capabilities and requirements, USAFSS again reviewed the problem of collocation of FWPU (Pacific) with the 6920th Weather effort.* By July 1952, FWPU (Pacific) controlled four weather positions, one of which was a voice position. It was estimated that 10 positions would be required to fulfill FWPU (Pacific) requirements. The Group had one and one-half weather positions in operation in Japan and four in Korea. It was estimated that one additional position would satisfy the Group Weather requirements. Therefore, USAFSS believed that, by consolidating the weather effort, an overall saving of one and one-half positions and 12 persons could be realized.⁵⁸ Nevertheless, no official action was taken on the problem during this period.

56. Ltr., Staff Weather Officer to CG, USAFSS, Subj: Report of Visit to AFSA, 3 June 1952. s.d. 269.

57. TWX, CG, USAFSS to Hq, AWS, Cite: OI-22293, 11 June 1952. s.d. 270.

58. Ltr, Staff Weather Officer to CG, USAFSS, Subj: Report of Visit to USAFSS Weather Sections and AWS Weather Centrals in the Far East and Alaskan Theaters of Operations, 9 July 1952. s.d. 271.

* See Weather Effort, Chapter IV, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

243

In respect to clarifying theater production problems, USAFSS and AWS did adopt a clear weather intercept policy during the period under consideration. This problem had resulted from the failure to place certain weather information requirements of the Japanese Weather Service prior to the signing of the Peace Treaty. Fortunately, however, the 6920th Group intercept units had occasionally intercepted the AMP weather broadcasts in the clear to provide cribbing material. Fortunately, also these broadcasts contained the Weather information desired. As a result of the situation, one squadron position was assigned to cover the AMP* broadcasts to satisfy the Tokyo Weather Central weather requirements.⁵⁹

Since AACS was responsible for furnishing clear weather information to AWS, Headquarters, USAFSS, viewed the Group activity in that field as unjustifiable. Hence, USAFSS instructed the 6920th Group to obtain a written requirement for such service from the 2143rd Air Weather Wing or from FEAF.⁶⁰ Subsequently, USAFSS notified AWS about the decision and pointed out that the requirement should be fulfilled by AACS.⁶¹ Therefore, late in September, the Group discontinued

59. Ltr., Hq, USAFSS to CG, AWS, Subj: Intercept of Clear Weather Broadcasts, 17 Sept 1952. s.d. 272.

60. Ltr., Hq, USAFSS to CG, 6920th SG, Subj: Intercept of Clear Weather Broadcasts, 9 Sep 1952. s.d. 273.

61. Ltr., Hq USAFSS to CG, AWS, Subj: Intercept of Clear Weather Broadcasts, 17 Sept 1952. s.d. 272.

* The AMP broadcasts were made "in the clear" from Peking, China.

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127

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~~TOP SECRET EIDER~~

of 192 Pages

~~TOP SECRET EIDER~~

interception and dissemination of information from the AMP broadcasts.⁶²

TACOMINT Service Recognized. In relation to establishing the TACOMINT Service officially, the original concept was enlarged and refined considerably before an official decision was advanced by either USAF or USCIB. As previously stated,* USAF took the first official step to approve TACOMINT exploitation in December 1951 by drafting a proposed regulation for utilization of such data. Although this proposed regulation recognized the urgent tactical need for certain categories of COMINT, it did not provide for a rapid and inexpensive system for exploitation of the required intelligence,** according to the current USAFSS TACOMINT concept.⁶³ However, before USAFSS replied officially to the USAF proposal, USCIB 13/234 was published. This paper proposed a revision of Appendix B of the BRUSA Agreement. It also divided COMINT into three categories. Since USAFSS viewed the definition of Category III COMINT, defined by USCIB 13/234, as a quasi approach to the Air Force TACOMINT requirement, the proposed TACOMINT regulation was revised by USAFSS to include the following types of data for Tactical exploitation:⁶⁴

62. Historical Data Report, 6920th SG, Jul-Dec 1952. TSC 2350.

63. Historical Data Report, DCS/Operations, Hq, USAFSS, Apr-Jun 1952. EX 4697.

64. 1st Ind (Ltr AFOIN-C/SR to CG, USAFSS, Subj: (Confidential) Proposed "Regulation for Tactical Exploitation of Communications Intelligence," 21 Dec 1951), Hq, USAFSS to D/I, USAF, 8 Apr 1952. s.d. 274.

* See TACOMINT, Chapter IV, this Study.

** USAFSS also exploited every conceivable avenue for getting Appendix "B" revised and/or a USAF TACOMINT regulation published during the period.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

245

1. Translations of plain language messages, including procedure signals.
2. Direction finding and traffic analysis to support RDF.
3. Solution of codes, ciphers and special systems of low security grading, as may be specified.

This latter species was defined by USAFSS as "such systems employed in tactical situations for transmitting information to be used as a basis for immediate action." It included grid systems, cover designations and other systems designed for brevity or limited security.

Six days after USAFSS submitted its revision of the proposed regulation to USAF, the USCIB Memorandum 13/241, dated 14 April 1952, was published. This paper proposed certain standards or definitions for various categories of COMINT. It also directed SECCOM* to prepare a draft Annexure to the proposed revision of Appendix B of the BRUSA Agreement which would "establish the precise basis for assigning communications material to the appropriate proposed categories." ⁶⁵ Again USAFSS viewed the tentative interpretation of TACOMINT (Category III COMINT) as too rigid. Therefore, USAFSS prepared its interpretation of Category III COMINT, based on current combat services and requirements, and submitted the interpretation to USAF for approval as the official Air Force position relative to TACOMINT exploitation. ⁶⁶

65. Paragraph I, Memo for the USCIB Coordinator, Subj: Draft Annexure to the Proposed Appendix B of the BRUSA Agreement, 8 July 1952. s.d. 275.

66. Ltr., Hq, USAFSS to D/I, USAF, Subj: Definition of Category III COMINT, 12 May 1952. s.d. 276.

* Security Committee.

HQS USAFSS TO D/I, USAF, 12 May 1952

~~TOP SECRET EIDER~~

128

~~TOP SECRET EIDER~~

Subsequently, an Ad Hoc Committee prepared the draft Annexure to the proposed revision of Appendix B as directed by USCIB 12/241. It is a matter of record that the Annexure reflected the Air Force and USAFSS concept of Category III COMINT (TACOMINT), because the portion of the draft Annexure relative to Category III COMINT definition and utilization stated that:⁶⁷

In military application, Category III will be produced only from tactical communications and will include only that information which can be derived from: (a) plain text; (b) D/F and associated T/A involving no interpretations of changing complex call signs or frequency systems; and (c) the solution of grid systems cover designation, procedure signals and other systems designed for brevity or limited security."

This draft Annexure, submitted to SECDEF on 8 July 1952, also recommended that authority to determine when a specific military situation warrants the assignment and handling of Category III COMINT be delegated to the Senior Intelligence Officer at the Departmental or Ministry level. At that time, this authority was vested in USCIB-ISIB.⁶⁸

Meantime, the course of events in the Far East continued to influence the Air Force approach to the problem. During February 1952, the 8920th Group and JADF developed a plan for early warning services (TACOMINT Support) for aircraft engaged in classified missions. As stated in Chapter IV of this study, this proposed plan resulted from requirements placed by JADF and authority implied in a revised USAFSS

67. Memo for the USCIB Coordinator, Section III, Paragraph 3c, Subj: Draft Annexure to the Proposed Appendix B of the BRUSA Agreement, 8 July 52. s.d. 277.

68. Ibid. s.d. 277.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

247

CIOP governing alert procedures. (The CIOP authorized passing of alert data by secure voice codes over either land-lines or radio telephone links).⁶⁹ This plan was forwarded to FEAF and USAFSS in April 1952 for concurrence. Essentially, the plan proposed that the Group would be supplied advance data on Ferret flights scheduled to approach sensitive areas. Then, the USAFSS units could watch for hostile reactions to the Ferrets and flash a code warning by land line to JADF radar sites in event of attempted intercept on the part of Soviet Fighters. The radar control centers would then flash a code warning to the aircraft in question, which would immediately take evasive action.

Headquarters, FEAF forwarded the plan to Headquarters, USAF on 8 May 1952, and AFOIN relayed the plan to USAFSS. At that time, AFOIN stated that "the sensitivity of Ferret operations would appear to deserve special protection such as outlined."⁷⁰ Also, AFOIN requested immediate comments from USAFSS relative to the protection planned and the proposed code to be employed. Four days later USAFSS submitted its official position on the TACOMINT problem to AFOIN as previously pointed out in this topic.* Therefore, on 22 May 1952, USAF informed FEAF

69. Historical Data Report, DCS/Operations, Hq, USAFSS, Jan-Mar 1952.

70. TWX, AFOIN-C/SR to CG, USAFSS, Cite: AFSBA 120, 8 May 1952. s.d. 278.

* See USAFSS Interpretation of Category III COMINT, this Chapter.

~~TOP SECRET EIDER~~

129

~~TOP SECRET EIDER~~

that the plan was approved, subject to use of low-level TACOMINT only. Further, USAF stated that the pre-arranged ground-to-air code must be considered as compromised when the system was used one time. This information was passed on to the 6920th Group, which informed Headquarters about the USAF approval on 30 May.

Also, the Group concurrently requested a definition and specific example of low-level TACOMINT. At that time, the Group stated: "Believe and recommend low-level TACOMINT should include all ground/air, air/ground and air/air transmissions, both voice and C/W, and all PVO tracking traffic."⁷¹ FEAF also requested USAF to define low-level TACOMINT, which USAF did on 10 June 1952. This definition was very similar to the USAFSS definition of Category III COMINT advanced to AFOIN on 12 May 1952.⁷²

Concurrently, a U.S. Ferret aircraft was lost and FEAF instructed JADF and the 6920th Group to implement their plan.⁷³ FEAF also cautioned the Group to pass the pre-arranged warning to the JADF controller only when traffic indicated that enemy fighters were being vectored on targets in the vicinity of the U.S. Ferret. However, the plan was not fully implemented in June 1952, because the AC&W radar site at Wakkanai (Site 18) was unable to contact the aircraft concerned.

71. TWX, 6920th SG to CG, USAFSS, Cite: SG 198, 30 May 1952. s.d. 279.

72. TWX, 6920th SG to CG, USAFSS, Cite: AP 897, 15 Jul 1952. s.d. 280.

73. Monthly Status Report, 6920th SG, Jun 1952. EX 3248.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

249

Subsequently, AWS expressed a desire for Early Warning services for its weather reconnaissance aircraft. This request posed another problem. The communications practices employed by the weather reconnaissance aircraft prevented the standard procedures from working. The radio operator aboard the aircraft was constantly transmitting weather information back to the home base and, therefore, could not "guard" the required alert frequency. Consequently, the Commanding General, JADF ordered another transmitter installed at Site 18 which could guard the frequency required for Early Warning to the Weather reconnaissance aircraft. Concurrently, FEAF placed a continuing requirement on the 6920th Group for complete data* on all attempted interception of U.S. Ferret, except those used in the Korean Operations.⁷⁴

Almost simultaneously with the implementation of the Ferret Early Warning Plan -- "Project Bittersweet" -- SECOCOM approved the draft Annexure prepared by the Ad Hoc Committee. However, it had to be approved by USCIB and forwarded to LSIB for approval, a procedure which would require several weeks. Hence, to expedite approval of the Air Force TACOMINT concept of operations and to gain interim official recognition of specific Air Force TACOMINT needs, USAFSS forwarded a list

74. Monthly Status Report, 6920th SG, Jul 1952. EX 3590.

* This information was to be relayed through approved COMINT channels.

~~TOP SECRET EIDER~~

150

~~TOP SECRET EIDER~~

of Air Force Category III COMINT requirements to USCIB on 3 July 1952. USAFSS also requested approval of this interim list by USCIB and its early transmittal to LSIB for approval. This list included: Types of COMINT resulting from exploitation of plain language, D/F, T/A, and C/A solution of R/T and C/W communications employed by the Soviets, Chinese Communists or North Koreans in the following instances:⁷⁵

1. Immediate impending action against aircraft engaged in combat in Korea. [That was being accomplished by Detachment 151 in Korea].

2. Immediate impending actions against U.S. Ferret Operations [FEAF and the 6920th Group had been seeking this authority for months, and USAF had approved it on 12 June 1952, one day before the Soviets fighters destroyed a U. S. Ferret off the Maritime Coast].

3. Imminent hostile air acts against the Japanese Air Defense Force. [This was a full TACOMINT service to assist in the defense of Japan; this service to be maintained in a high state of readiness, e.g., communications and procedures established, and to implement the service immediately upon receiving a Condition "A" notice in accordance with the USAFSS CIOP. The Group had already prepared and coordinated a plan for the service].

75. Ltr w/Incl, Hq USAFSS to USCIB Secretariat, Subj: USAF Category III Communications Intelligence Requirements, 3 Jul 1952. s.d. 281.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

251

4. Imminent hostile air acts against the U.S. Air Forces
in Europe [USAFE].

5. Early Warning of attack against the Continental United
States.

6. Early warning of an attack against the U.S. Forces
in Alaska.

Aside from deleting the right to tactically exploit crypto system

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USCIB generally approved the Air Force TACOMINT require-

ments on 18 July 1952 as an interim measure, pending resolution of
the proposed revision of Appendix B of the BRUSA Agreement.⁷⁶ Sub-

sequently, the 6920th Group agreed that Crypto System 25x3 was
not essential to the accomplishment of the Air Force TACOMINT mission.⁷⁷

Furthermore, on 21 July 1952, the USCIB coordinator in a message to SUSLO,
London, requested concurrence in certain exceptions to Appendix B,
pending the completion of a major policy revision of Appendix B. These
exceptions were "use of COMINT as a basis for operational orders in
Korea and to support Ferret Operations."⁷⁸

Again, USAF and USAFSS attempted to get a TACOMINT regulation
published. Again, USAF (AFOIN) drafted a regulation reflecting the
current concepts and submitted it to USAFSS on 25 August 1952 for con-
currence. However, USAFSS withheld concurrence, pending the LSIB

76. Tech Note, CCO to CCG, Cite: WDC/CCO 1451, 19 Jul 1952. s.d. 282.

77. Historical Data Report, DCS/Operations, Hq USAFSS, Apr-Jun 1952.
EX 4697.

78. TWX, USCIB Coordinator to SUSLO, Cite: WL 119, 21 Jul 1952. s.d. 283.

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~~TOP SECRET EIDER~~

131

~~TOP SECRET EIDER~~

reaction to USCIB 13/268, which embodied the proposed revision of Appendix B of the BRUSA Agreement. The advance LSIB reaction to the USCIB paper arrived early in October 1952. It indicated that LSIB would agree to the "Y" type service in Korea, but would not agree to the "Bittersweet" operation. Therefore, on 9 October USAFSS informed AFOIN that the proposed regulation needed to be revised to delete support of Ferret operations and to provide for use of TACOMINT in meeting the Early Warning requirements. Then, USAFSS recommended that the following paragraphs be incorporated in the proposed regulation.⁷⁹

1. These provisions are applicable to such Commands as may be authorized by the Director of Intelligence, Hq USAF, to receive and take operational action based on TACOMINT. Normally, such authorization will be given only to Commands which are or will be imminently engaged in combat or which have a requirement for Early Warning information.

2. TACOMINT, as such, will not be disseminated to anyone other than those who have been specifically authorized to receive it. However, TACOMINT may be used as the basis for operational orders to aircraft or air units which are or will be imminently engaged in combat with the enemy. In these circumstances, the operations orders will be classified and disseminated on the basis of the material contained therein.

79. 1st Ind (Ltr., AFOIN to CG, USAFSS, Subj.: (Confidential) Regulation for the Security and Dissemination of Tactical Communications Intelligence (TACOMINT) 25 Aug 1952) Hq, USAFSS to D/I, USAF, 9 Oct 1952. s.d. 284.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

253

While USAFSS was awaiting some reaction from LSIB, events in the Far East were changing the TACOMINT utilization plans in that area. In August, the Navy, ASAPAC and the 6920th Group agreed upon a mutual exchange of Early Warning information. This move was designed to insure that all indications of impending hostilities were available to the three agencies.⁸⁰ Also, FFAF requested the 6920th Group to develop a plan for employment of TACOMINT to assist in Air Defense of Japan. This plan was prepared in conjunction with JADF. It was based on the operations of Detachment 151 in support of the 5th Air Force.⁸¹ Concurrently, overflights in the Hokkaido area by unidentified aircraft began to increase. In addition, a U.S. B-29 was destroyed by Soviet fighters near Nemuro on 7 October 1952.

Immediately, following the loss of the B-29, JADF initiated a request for a Voice Intercept Team to deploy to Nemuro to monitor the Russian GCI in that area. FFAF concurred with the request on the basis of testing the site.⁸² However, the 6920th Group replied that Nemuro offered no unique intercept in comparison with Wakkanai intercept.*

80. Ltr., Hq, 6920th SG to CG, USAFSS, Subj.: Semi-Monthly Progress Report Number 22, 12 Aug 1952. s.d. 240.

81. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 23, 28 Aug 1952. s.d. 285.

82. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 27, 27 Oct 1952. s.d. 286.

* ASAPAC had tested Nemuro in 1951 and had drawn the same conclusion.

~~TOP SECRET EIDER~~

132

254

~~TOP SECRET EIDER~~

Therefore, JADF informed FEAF on 14 October that the requirement was for a "Y" type of service to assist in interception of Russian aircraft overflying Hokkaido. The Group requested JADF to confirm the requirement and sent an information copy of the request to USAFSS along with the Group plan for supplying the Service.⁸³

Two days later, USAFSS wired the 6920th Group as follows:⁸⁴

. . . . If TACOMINT paper approved by USCIB, DIR OF INTEL, Hq USAF must approve TACOMINT in each specific situation; this Hq, however, cannot concur in proposed facility at Nemuro if COMINT is to be used to "Vector Aircraft." Consider such utilization as jeopardizing future capabilities.

Simultaneously, USAFSS transmitted both messages to AFOIN and informed that agency that the USAFSS opinions and recommendations would follow immediately.⁸⁵

Concurrently, the Team from the 6920th Group began the operational test at Nemuro. Nevertheless, in accordance with the USAFSS viewpoint, the information was not passed to the JADF controller. Hence, on 19 October FEAF requested Headquarters USAF to obtain authority for the team to fulfill the JADF requirements, viz., provide an extended

83. TWX, 6920th SG to Hq, USAFSS, Cite: AP 455, 16 Oct 1952.
s.d. 287.

84. TWX, CG, USAFSS to CO, 6920th SG, Cite: ODC23818, 16 Oct 1952.
s.d. 288.

85. TWX, CG, USAFSS to SRB, USAF, Cite: ODC-23819, 16 Oct 1952.
s.d. 289.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

255

Early Warning Service to the JADF Controller at Nemuro in the form of radar plots from the voice intercept. At that time the Nemuro radar capability for scrambling aircraft was limited by the equipment and the distance from Nemuro to the nearest operational Jet Base.⁸⁶

The FFAF request was referred to USAFSS by AFOIN for evaluation and comments. By that date, USAFSS had received advance information on the LSIB reaction to USCIB 13/268, which indicated that LSIB would not concur in the relaxation of the BRUSA Agreement in respect to employing COMINT for Ferret protection. The legality of the "Bittersweet" operation and the possible effect of the Nemuro operation on future COMINT capabilities caused USAFSS to recommend the disapproval of the Nemuro project and the discontinuance of the "Bittersweet" operation.⁸⁷

Subsequently, LSIB advanced its decision relative to the USAF Category III COMINT requirements. In brief, LSIB agreed to the TACOMINT operation in Korea, but did not concur in relaxing the BRUSA Agreement relative to protection of Ferret aircraft with TACOMINT. Moreover, LSIB requested permission to send British COMINT representatives to the Far East to observe TACOMINT operations.⁸⁸ As a result of the above factors, USAF disapproved the Nemuro project and

86. TWX, Hq, FFAF to Hq, USAF, Cite: LNF 035, 19 Oct 1952.
s.d. 290.

87. Technical Note: CCS to CCO, Cite: CCS 1772, 22 Oct 1952.
s.d. 291.

88. Technical Note: CCO to VCS, Cite: WDC/CCO 3116, 22 Oct 1952.
s.d. 292.

~~TOP SECRET EIDER~~

133

~~TOP SECRET EIDER~~

instructed FEAF to suspend "Bittersweet" operations. At the same time, USAF informed FEAF about the pending British visit to the Far East and suggested that the visit would be an opportune time to emphasize the urgent need for protection of aircraft by use of COMINT.⁸⁹ Also, USAF instructed USAFSS to "initiate action in conjunction with such agencies as you [USAFSS] deem appropriate" to formulate a suitable plan to utilize COMINT for protection of USAF Aircraft."⁹⁰

Since NSA had been created from the framework of AFSA and had been given operational and technical control of the U.S. COMINT agencies by that date, USAFSS informed the Director, NSA about the Air Force request and recommended a conference on the problem.⁹¹ Subsequently, USAFSS was informed that NSA had attacked the problem from the standpoint of communications cover and deception. Therefore, late in December 1952, USAFSS requested a conference, so that a suitable plan could be developed in time to present the plan to the British upon their visit to the Far East.⁹²

89. TWX, SSO, Hq, USAF to SSO, FEAF, Cite: AFSBA 123, 28 Nov 1952. s.d. 293.

90. TWX, SSO, Hq, USAF to CG, USAFSS, Cite: AFSBA 280, 29 Nov 1952. s.d. 294.

91. Technical Note: OI to CCO, Cite: OI 2238, 15 Dec 1952. s.d. 295.

92. Technical Note: OI to CCO, Cite 2312, 24 Dec 1952. s.d. 296.

* USAF issued the above instructions on 28 Nov 1952. NSA was created on 4 Nov 1952. Although USAF had not changed the status of the USAF Security Service, it was aware of the provisions of NSCID No. 9 Revised.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

257

MODIFICATION OF TACOMINT TECHNIQUES AND SERVICES

Many practices or methods of TACOMINT collection and production were revised, altered or changed completely by the end of 1952. Probably the greatest number of refinements or modifications occurred in the collection effort, analytical effort and intelligence production effort. These alterations were primarily the result of modified communist air tactics, specific requirements of the UN Tactical air units, expansion of TACOMINT effort, and the overall USAFSS approaches to existing problems.

Modification of TACOMINT Techniques.—By April 1952, the traffic intercepted by Team I at Seoul had begun to decrease. Thus, it was decided to re-establish Team I advanced.* However, it was decided to deploy the advanced intercept unit to Cho Do Island in the Korean Bay. This decision resulted primarily from the quality of traffic intercepted in a test conducted earlier on Cho Do. The test effort had collected some very good air-to-air, air-to-ground and ground-to-air traffic. The move was further influenced by the fact that the 606th AC&W squadron was establishing a ground controller and another radar set on Cho Do.⁹³

Early in April 1952, the planned consolidation of Detachment 151

93. Historical Data Report, 6920th Security Group, Apr-Jun 1952.
EX 3482.

* See TEAM I, Chapter III, this Study.

HQS USAFSS TSC No 59-09525

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~~TOP SECRET EIDER~~ 134 of 132 Pages

~~TOP SECRET EIDER~~

facilities was begun.* The first consolidation, at Chosen Christian University, was completed by 12 April. This placed all sections of the Detachment, i.e., C/W intercept, traffic analysis, translation and communications in the same building. Also, Captain Cho's ROK capability was relocated in one Wing of the University and Team I was moved from a hill approximately 200 yards from the University to the tower of the main building. Thus, all elements of Detachment 151, except Team I advanced and Team III were consolidated in the University. Team III was later relocated in the University. In addition, by April 1952, the graduates of the USAFSS Language Training Program at Yale had arrived in the Far East. These graduates were organized into Team II US and equipped to perform the mission of Team II. [REDACTED] The U.S. Team took over the Chinese Voice intercept effort on 23 May and the [REDACTED] of Team II were phased out of the operation the following day. 94

EO 3.3b(3)
P.L. 86-36

Meantime, a combination of forces had begun to influence the actual operation of the TACOMINT effort in Korea by late May 1952. First, the Communist air tactics and communications procedures were modified in a manner which indicated greater security on the part of the Communists. Second, some of the Voice (Communist) GCI communications began to disappear. Third, the 5th Air Force requested more specific locations (grids) on airborne Communist aircraft.

94. Historical Data Report, 6920th SG, Apr-Jun 1952. EX 3482.

* See TACOMINT, Chapter IV, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

259

In relation to the first force or factor, TACOMINT operations soon disclosed that the rigid control of aircraft exercised by the Communists, plus the difficulty of enciphering timely operational instructions, offset, to some extent, the effect of the rapidly changing Communists communications procedures. In other words, the experienced TACOMINT personnel could actually follow the changes closely without difficulty, i.e., substitute the proper values for various codewords and equate call signs and frequencies. In addition, the strict control exercised by the Communists radar controller* often disclosed the geographical position of the airborne aircraft.

Proposed solutions relating to the second, and indirectly to the third factors, were prepared by the mainland (Group) analysis effort. This approach resulted from a pattern noticed by analysts** in the analysis of Chinese Morse PVO traffic. This analysis disclosed that the Chinese Communists had saturated the Manchurian-North Korean area with radar stations and ground observer posts which transmitted reports to a filter center by Morse. However, unlike the Russian system,*** the Chinese were constantly transmitting reports (tracks) on all aircraft in their vicinity. Thus, by comparing the Chinese C/W PVO traffic with the R/T traffic, it was determined that the traffic could be related.

* The Communist radar capability was limited to certain areas. Therefore, when their aircraft flew beyond these areas, the radar controller would query the aircraft as to where they were or instruct them to return to certain zones.

** These analysts previously had been active in Korean intercept and analysis. They were familiar with the current TACOMINT techniques and capabilities.

*** The Russians immediately stopped tracking an aircraft when it was recognized as a Communist aircraft. However, the Chinese did not fully adopt this Russian technique until 1953.

~~TOP SECRET EIDER~~

135

~~TOP SECRET EIDER~~

For example, when the Antung controller would instruct another controller to scramble a flight, these instructions could be intercepted on Voice. On the other hand, the scrambling of the aircraft (instructions, etc) could not be copied by the TACOMINT facilities. Yet, about one minute later, tracks transmitted in Morse would appear in the vicinity of the airfield from whence the aircraft were scrambled. These tracks continued to be transmitted by Morse until the aircraft were well within the boundaries of North Korea. Therefore, it was believed that by establishing a C/W effort in conjunction with the R/T TACOMINT Service more information on the Communists fighter aircraft could be obtained.*

Consequently, the 6920th Group sent some of the analysts to Korea and instructed the 15th RSM to conduct a test to determine the tactical usefulness of C/W PVO grid traffic in conjunction with Russian and Chinese GCI traffic. It was necessary to consolidate Russian Voice, North Korean Morse and Chinese PVO to adequately perform the test. Hence, four Chinese PVO positions were installed in the same room with the Russian and Chinese Voice intercept effort. In addition, a Detachment TACOMINT filter center was also organized in the same room. The

* The above information was furnished by Master Sergeant Anthony D. Reiskis, who was the first NCOIC of Team I and later became NCOIC of all USAFSS units in Korea. Also, Sergeant Reiskis was one of the analysts who discovered the above pattern and was returned to Korea to aid in implementing the plan.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

261

filter Center consisted of an upright plotting board and two similar but smaller boards. The main TACOMINT controller plotted all PVO grid tracks on the large board while the Chinese and Russian Voice controllers plotted their respective grid tracks on their smaller boards, which had individual zoning systems. The large board had the Chinese zonal system superimposed over the Russian Zonal System. This procedure was designed to allow the main controller to refer to all tracks of enemy aircraft simultaneously, thus obtaining a current and accurate picture of air activity over North Korea.⁹⁵

Briefly, the operation was performed as follows: Aircraft positions in the form of grids were intercepted by one or more of the following TACOMINT facilities--Chinese Early Warning Voice, Chinese GCI Voice, Russian GCI Voice, North Korean GCI Voice and Chinese PVO Morse. These aircraft positions were plotted on the large board and two small ones. The main USAFSS controller then equated the tracks and instantly transmitted the information in the form of radar plots to the 606th AC&W Squadron, located at Kimpo Air Field. This latter unit further equated and evaluated the information and passed instructions or orders to U.S. Fighter Aircraft in the areas concerned.⁹⁶ This information was

95. Historical Data Report, 15th RSM, Jul-Dec 1952. TSC 2168.

96. For a graphic presentation of TACOMINT operations in Korea see Tabs 5 and 7, Trip Report, Subj: Report of Visit to 6920th SG, 9 Feb 1953. TSC 573.

~~TOP SECRET EIDER~~

136

~~TOP SECRET EIDER~~

passed to the U.S. aircraft in radar language to disguise its source.⁹⁷

A similar but smaller facility was also established on Cho Do. This effort, termed "Operations C", was designed to increase the tactical intelligence potential, especially on Russian VHF GCI activities. Also, dissemination to the TADC on Cho Do was more secure and effective than dissemination from Detachment 151 to the TADC on Kimpo. Later, a Chinese Air Voice effort was added at Cho Do because of the relationship between the Russian and Chinese Communists Air activity. Therefore, two airmen and the necessary equipment were transported to Cho Do on 21 August. In addition, two ROK Voice operators were flown over to the area to assist in the construction of the intercept antennas.* One large wire antenna (130 feet) and five short wire antennas (50 feet) were erected. These antennas were orientated for Russian VHF and Chinese Voice transmissions. They were constructed so that they could be used as Vee's by clamping the lead from a receiver to any two of the copper antenna terminals. The receiving equipment for Chinese Voice consisted of one SP-600 and one BC-779 receiver and one RT-11A recorder. The equipment for the Russian VHF intercept consisted of two BC-787 receivers and one Magna-corder.

97. Historical Data Report, 6920th SG, Jul-Dec 1952. TSC 2350.

* The ROK Operators were selected for the task because of their extensive knowledge of communications procedures, particularly the target communications.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

263

This capability became operational on 26 August. It employed six USAFSS airmen--four Chinese linguist operators and two Russian linguist operators. It also utilized two maps, one containing the Russian grid system and the other containing the Chinese grid system of North Korea and lower Manchuria. These maps also contained the same grid system used by the radar (AC&W) plotters so that tracks of aircraft could be passed to Cho Do TADC in radar terms. As an added security measure, overlays of all permanent radar echoes were placed over the plotting maps of Operation C. Hence, aircraft in the radar echo areas were not reported to the radar controller. This type of operation continued until late November 1952. At that time, the procedures employed by Operation C were again refined in support of changing TACOMINT operations.

The success of Operation C, generally, was reflected in the integrated TACOMINT operations in Korea. However, one of its individual and probably most dramatic contributions to close air support occurred in October 1952. During October, a Marine pilot "ditched" his plane 40 miles southeast of Antung. Since the event occurred in the shadow of a permanent radar echo, the AC&W radar operator did not see the plane go down. The "May Day" transmission was heard and a crash boat and helicopter were immediately dispatched from Cho Do. The helicopter was picked up by Russian GCI, which reported the copter to a flight of MIG's. One of the USAFSS operators who was intercepting

~~TOP SECRET EIDER~~ 137

~~TOP SECRET EIDER~~

the GCI transmissions, immediately passed this information to the radar controller. Therefore, a flight of F-86's in that area was vectored to the scene to protect the helicopter. The Russian GCI also picked up the F-86's and warned the MIG's. Hence, the MIG's orbited high above and to one side of the rescue scene. The F-86's did the same while the helicopter went in and pulled the pilot out of the water.⁹⁸

The voice intercept of Detachment 151 continued to improve throughout this period. Yet, by August 1952, it was discovered that some enemy air COMINT targets had switched to VHF. This, naturally, resulted in less HF traffic. The effectiveness of the TACOMINT Service further decreased because the Chinese Communists Early Warning nets quit passing C/W traffic on Communists aircraft. By early winter 1952, this situation was aggravated further. By that time, the Communists GCI system had increased to the extent that it stopped using the zonal system for control of aircraft. Thus, another approach to an effective TACOMINT service had to be developed and implemented.⁹⁹

98. Historical Data Report, 15th RSM, Jul-Dec 1952. TSC 2168.

99. Ibid., 6920th SG, Jan-Jun 1953. TSC 4073.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

265

Weather Operations. The development of a Far East Weather capability continued to rate top priority. By March 1952, the USAFSS personnel in the Far East had assumed the responsibility for working the

25x3 weather cipher system and AFSA personnel had returned to the Zone of Interior. However, the 25x3 Weather cipher changed again in April,* which again required the assignment of AFSA personnel to the Group Weather Section.¹⁰⁰ Although the ACP weather broadcast became readable again in early July, during the unreadable period the commercial and military air cases containing weather were copied as well as the ACP broadcasts. These former cases contained weather information and valuable cribbing material which were used in solving the new cipher. At this point, the Group Weather Section was producing the hourly or off-time Weather reports and FWPU (Pacific) was producing the map time or six-hourly weather reports.

P.L. 86-36
EO 3.3b(3)

The AFSA team arrived at the Group early in July. 25x3

25x3 until 31 July. At that time an unexpected change occurred in the use of 25x3 on the 25x3. Therefore, the AFSA team returned to Washington, because the change necessitated the logging of traffic

100. Ltr., Staff Weather Officer to CG, USAFSS, Subj: Report of Visit to AFSA, 3 Jun 1952. s.d. 269.

* Normally, a change in a cipher of the above nature rendered the Weather broadcasts unreadable for approximately four months.

138

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

P.L. 86-36
EO 3.3b(3)

again until sufficient ¹⁰¹ 25x3 was reached which would enable decryption to begin.

25x3 effort. Furthermore, the Group continued its effort on the 25x3 cipher throughout the period. Only one change occurred in this cipher and it was sufficiently recovered to enable dissemination of approximately 7,000 25x3 synoptic, 25x3 and 25x3 to consumers by the end of December. ¹⁰²

The COMINT weather operation in Korea was viewed as an ideal organization.* Moreover, its performance throughout 1952 continued to substantiate that view. Also, inadequate communications facilities between Seoul and Johnson emphasized the importance of this operation. By March 1952, the Group had determined that the transmission delay on Chinese Weather information produced in Japan was so great that the information lost its value by the time it arrived at the 30th Weather Squadron, located in Korea. Consequently, the Weather effort at Detachment 151, was augmented--the weather personnel was increased

101. Monthly Status Report, 6920th SG, Jul-1952. EX 3590.

102. Historical Data Report, 6920th SG, Jul-Dec 1952. TSC 2350.

* For example, one very important aspect of the Weather unit located in 5th Air Force was the fact that it could react immediately to specific Weather requirements, e.g., what will the Weather be over UIJU at 1000 this morning? The Weather personnel in the unit knew the station and time of broadcast which was most likely to carry the desired Weather and could adjust intercept coverage on the spot.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

267

25x3

In addition, the Detachment Weather unit began 24-hour operations.¹⁰³

By that time, the Detachment COMINT Weather capability and the AWS Weather Unit were located in adjoining rooms. The Weather was intercepted and the data was handed to the processing personnel, decrypted and passed to the SWISO in a matter of minutes. Hence, the AWS forecasters (30th Weather Squadron Personnel) actually received

EO 3.3b(3)
P.L. 86-36

25x3

weather reports as soon as the

25x3

forecasters did.¹⁰⁴ As a matter of record, the 30th Weather Squadron forecasters employed the Detachment products to prepare accurate 18-hour weather forecasts for Korean Air Operations.¹⁰⁵ This service was extended during July 1952 by request from the 30th Weather Squadron. The additional requirement was for SWI from the Manchurian area so that weather conditions could be predicted for heavy bombing raids over the PYONGANG area.¹⁰⁶

Also, Headquarters, 15th RSM contributed to the COMINT Weather

103. Monthly Status Report, 6920th SG, Feb 1952.

104. Ltr., Staff Weather Officer to CG, USAFSS, Subj: Report of Visit to USAFSS Weather Sections and AWS Weather Centrals in the Far East and Alaskan Theaters of Operations, 9 Jul 1952. s.d. 271.

105. Monthly Status Report, 6920th SG, May 1952. EX 3093.

106. Historical Data Report, 6920th SG, Jul-Dec 1952. TSC 2350.

~~TOP SECRET EIDER~~

139

~~TOP SECRET EIDER~~

effort throughout most of 1952. As previously stated, a weather processing effort was inaugurated at Ashiya during the summer of 1952 to alleviate the communications load. Four airmen were sent to Ashiya in August to decrypt and disseminate the encoded [25x3] Communists Weather broadcasts being intercepted. Although the majority of this information was passed to the Group for further processing, the Unit also passed some [25x3] information to the 5th Air Force Weather Section, which was operated by Detachment 151. This original effort was expanded in September to include two [25x3] Weather cases and again increased in December. At that time, Headquarters, 15th RSM began receiving [25x3] navigational and Civil Air Weather information from Detachment 152 (Okinawa).

P.L. 86-36
EO 3.3b(3)

Hence, by late 1952, the capability of the Group Weather Sections had grown to 30 airmen and three officers, who had developed a high level of technical proficiency. These Weather Units had also developed the [25x3] on the [25x3] Weather and Non-Weather nets. Under normal conditions, these units were furnishing AWS in Tokyo and Korea from 15,000 to 20,000 SWI reports each month. The reports covered areas in China, Manchuria, North Korea and Eastern Russia. Although the majority of the reports were obtained from [25x3] and North Korean military and civil air nets, some reports were produced from [25x3]

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

269

Weather nets when the cipher was readable. Finally, the Weather Sections continued to furnish direct support to the COMINT analytical effort by supplying information which could be used to identify and locate call signs and stations.¹⁰⁷

Coverage of Ferret Operations. The actual coverage and reporting of ECM and Ferret flights was continued throughout the period under consideration in accordance with previous agreements and arrangements.* "Bittersweet" operations were in effect from June to December 1952. However, the majority of Ferret or ECM coverage was conducted as a normal COMINT operation, i.e., the coverage of enemy reactions was performed as a mission and the reporting was accomplished through approved COMINT channels. This effort produced a great deal of intelligence relative to the enemy (Russian and Chinese Communists) air defense capabilities and techniques. It also supplied information of political significance as in the case of the RB-29 destroyed by Russian fighter aircraft on 7 October 1952.¹⁰⁸ Intercept relative to this incident revealed that Russian aircraft actually encountered and attacked the U. S. aircraft.¹⁰⁹

107. R&R and 1 Incl., ODC to CAG, Subj: Report of Visit to USAFSS, AFSA and AWS Weather Activities in The European Theaters of Operation, 6 Nov 1952. s.d. 297.

108. TWX, 6920th SG to CG, USAFSS, Cite: SG 705, 9 Oct 1952. s.d. 298.

109. TWX, 6920th SG to CG, USAFSS, Cite: SG 707, 9 Oct 1952. s.d. 299.

* See ECM Program, Chapter IV, this Study.

~~TOP SECRET EIDER~~

140

~~TOP SECRET EIDER~~

Group Production Techniques Enlarged and Refined. In respect to the refinement and extension of Group production techniques, the intelligence requirement of that period probably influenced those modifications equally as much as the increased capability of the TACOMINT effort. Production-wise, the Group was faced with the problem of satisfying more specific requirements, both at the tactical and theater levels. Furthermore, the quality and quantity of the intelligence produced had begun to influence production equally as much as the timeliness factor. In other words, the Group intelligence reports had to satisfy departmental as well as tactical requirements for both technical data and evaluated COMINT. Therefore, duplication had to be eliminated and consolidation had to be implemented for consistency with circumstance.

In response to the influence of intelligence requirements, the Group began, in April 1952, a new series of intelligence reports--the [25x3] which were designed to cover the Russian Air problem comprehensively. This report series permitted the discontinuance of three other series of reports: The COMINT Brief, the Fighter Activity Report and The Russian Air Activity Report. In addition, one section of Group Operations produced a complete "COMINT History of the [25x3] This report provided the COMINT producers and consumers a detailed history of each [25x3] complete with maps and diagrams which presented unit disposition, movement, personalities composition, etc.¹¹⁰ It was issued

P.L. 86-36
EO 3.3b(3)

110. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 15, 29 Apr 1952. s.d. 236.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

271

in loose-leaf form and revised monthly.

A similar report was also released by the Group late in June 1952. This study was a "Report on Communist Air Defense in Korea." In addition, two similar special requirements were fulfilled by the Group during the Summer of 1952. On 15 July the 5th Air Force requested the Group to prepare a study of the Soviet activity in Manchuria and suggested the following items for comparison: Development of vectoring techniques, changes in tactics, levels of day activity, levels of night activity, areas of flight activity and southernmost limits, variations in aggressiveness, size of flights, bases used in Manchuria and Korea, major changes in capabilities and proportion of Russian activity to Chinese and Korean activity.¹¹¹ Although the Group transferred the requirement to Headquarters, USAFSS for action, it later fulfilled the preliminary requirement before the deadline date established by 5th Air Force.¹¹²

Moreover, the 5th Air Force also requested a study of the action taken by the GCI control to withdraw enemy fighters from Korea when Sabres were in MIG Alley. This study was prepared by the Group from voice traffic. The first report, submitted to the 5th Air Force on 21

111. TWX, 6920th SG to CG, USAFSS, Cite: SG 369, 12 Aug 1952.
s.d. 300.

112. TWX, CG, USAFSS to CO, 6920th SG, Cite: ODD-92711, 8 Aug 1952.
s.d. 301.

~~TOP SECRET EIDER~~

111

~~TOP SECRET EIDER~~

272

August, was prepared solely from Russian Voice traffic. It indicated that the MIG pilots did not always demonstrate the same aggressiveness as the GCI controller. In other words, the MIG pilots appeared to have a deep respect for the Sabre pilots and often made deliberate attempts to avoid engagements. On the other hand, the Soviet Controller appeared to have little regard for loss of pilots or aircraft as long as they remained over Communist territory. As a whole, the entire controller network appeared to be more aggressive, but the primary targets were UN fighter-bombers and light bombers on daylight missions. True, high-flying MIGs would be scrambled to cover the low-flying MIGs. However, if the Sabre cover for the ground attack UN aircraft appeared to have the numerical and/or tactical advantage, the Soviet Controller would withdraw his aircraft or scramble more to augment the flight already airborne.¹¹³

In addition to preparing the studies cited above, the Group fulfilled two special requests from FEAF Bomber Command during this period. The first of these requirements was for COMINT reflections of the bombing of a metal plant on 30 July 1952. A study of intercept traffic for that period revealed that the Communist network was probably alerted and awaiting this mission, for sufficient warning had already been supplied through the early warning networks. However, the exact

113. TWX, 6920th SG to SSO, 5th AF, Cite: SG 449, 21 Aug 1952.
s.d. 302.

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273

target area, normally not known by the Communists,* was evidently known in this case because the Communists established their patrol in the immediate Antung area instead of the normal patrol area.¹¹⁴

The Second Bomber Command requirement was for a complete study on Soviet Night Fighter reactions to UN B-29 penetrations of North Korea. This analysis was made exclusively from voice traffic. It revealed that a B-29 bomber or its reconnaissance counterpart could not enter North Korea undetected during darkness. This was primarily the result of the network of radar stations, gun-laying radar sites and visual spotter stations manned by Russians, Chinese Communists and North Koreans. However, the scrambling of the enemy interceptor aircraft by the controller was seemingly dependent on two major factors, e.g., where the target was located and the weather conditions. Normally, the Russian Night Fighters would not venture more than 20-30 miles east or south of ANJU. Nevertheless, the Communists were equipped for interception of night bombers and on several occasions displayed a very proficient night intercept effort. Further, the Communists normally prepared for any eventuality by deploying a coastal patrol when the UN aircraft approached from the south or southwest. The Communists would deploy a patrol to the south up to the SUI-HO patrol when the UN aircraft approached from the east or northeast. The Yalu patrol

114. TWX, 6920th SG to CG, USAFSS, Cite: SG 421, 6 Aug 1952. s.d. 303.

* This conclusion was drawn from the general and wide area that the patrol normally covered.

~~TOP SECRET EIDER~~

142

~~TOP SECRET EIDER~~

would be deployed shortly before or after the UN aircraft entered the area or appeared to be heading for the ANTUNG-SINUIJI area.¹¹⁵

Group Operations Refined. The Group operations during this period closely paralleled the intelligence production effort in that consolidation and realignment of collection functions and analysis support were influenced by both tactical and departmental operational concepts. Generally, the Group attempted to redeploy and realign its capabilities and effort in direct support of the tactical and theater requirements with fulfillment of the departmental or strategic requirements as the secondary objective.

In connection with Group control and direction of the field collection effort, the Far East USAFSS agency was forced to approach this problem from two points, i.e., intercept assignments and technical support of intercept positions. As early as 20 May 1952, the Group strongly recommended to USAFSS that all intercept assignments be forwarded to Group Headquarters for implementation. About this recommendation, the Group wired:¹¹⁶

This will permit Group to determine if AFSA assignments will require reshuffling of Group assignments and also allow this Hq to issue necessary TEXTIA info. occasionally messages sent to Detachments and Squadrons will not be received by this Hq due to garbles in addresses and human errors, causing a considerable amount of confusion in the mission assignment. If messages were addressed to Group only, the above situation would not exist.

115. TWX, 6920th SG to CG, USAFSS, Cite: SG 409, 7 Aug 1952. s.d. 304.

116. TWX, 6920th SG to USAFSS, Cite: AP 881, 20 May 1952. s.d. 305.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

275

This stand was reiterated by the Group late in July 1952 following the occurrence of such an incident which the Group had warned against.¹¹⁷ Concurrently, the Group stopped disseminating copies of the Intercept Plan because when it arrived at Group, it was already outdated by many message changes. Therefore, to avoid confusion at Squadron level, the Group spelled out the Squadron mission assignments. This system proved efficient throughout the summer of 1952.¹¹⁸ Furthermore, by early December 1952 the Group had voiced its stand on POROCCO mission changes. On 5 December, the Group wired the following concept to DIRNSA.¹¹⁹

. . . To fulfill requirements of schedule analysis, this Hqs suggests folwg procedure. Instead of assigning different net each day as required by clylic (sic) cover, believe that proper coordination between operators and traffic analysis would more efficiently produce desired info. When circuits heard, record is made and intercept operators will check same freq. at same time next day, and keep checking until firm schedule is ascertained for the link: Utilizing this method of cover will permit coverage of more than one case per day, therefore, intercept position will be more productive. Combined results this pos. and search traf from other sites should produce firm schedules. Schedules would be more firm than those produced by clylic (sic) cover because case would be heard more often, if active.

Finally, by the end of December 1952, the Group completed its plans for further changes in the intercept capabilities and practices. Actually, this plan, when implemented early in January 1953, would consolidate

117. TWX, 6920th SG to CG, USAFSS, Cite: AP 203, 20 Jul 1952. s.d. 306.

118. TWX, 6920th SG to CG, USAFSS, Cite: SG 671, 29 Sep 1952. s.d. 307.

119. TWX, 6920th SG to DIRNSA, Cite: SG 221, 5 Dec 1952. s.d. 308.

HQS USAFSS TSC No 59-09525

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143

~~TOP SECRET EIDER~~

192 Pages

~~TOP SECRET EIDER~~

the intercept effort of USA 38 and USA 38B at USA 38B. This move was designed to satisfy two major considerations which had to be resolved in order that assignments could be made with the least loss of cover and continuity in reporting all Russian intercept. The first factor involved was the best geographical location which would produce the greatest volume of the desired traffic. The second factor was the implementation of the TECSUM program which had to be accomplished with a minimum number of personnel (analytical and communications).¹²⁰

As for the second or technical support approach to the problem, the Group program was designed to supply technical backup to its stations in a manner somewhat similar to the intercept assignments. Hence, again the Group was forced to reconcile Zone of Interior or Strategic operational concepts with the tactical situation and circumstance. By early May, the Group had delegated some analytical functions to USA 54* to permit immediate exploitation of PVO tracking type traffic. Also, the intercept stations were performing traffic identification consistent with their limited analytical capabilities.¹²¹ However, the assignment of temporary notations and equation of old

120. TWX, 6920th SG to DIRNSA, Cite: SG 711, 31 Dec 1952. s.d. 309.

121. TWX, 6920th SG to CG, USAFSS, Cite: AF 765, 12 May 1952. s.d. 310.

* This was in connection with exploitation of the Chicom Air problem.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

277

notations was performed at Group analysis level and not at the point of intercept.¹²²

In respect to supplying and performing the above type of technical support for the intercept stations, the Group advanced the following justification for its practices early in August 1952.¹²³

. . . At the present this Hq. is unable, due to use of completely unrecovered keys to predict in advance the calls that will be used on any particular net. Therefore, this information cannot be forwarded to the various intercept sites prior to intercept for identification purposes. It is possible considering nets with periodically changing calls, to recover and associate the calls with particular nets one or two days after receipt at this Hq. One additional day will be lost before the intercept operators at all sites will have this info. Considering the call sign period to be approximately seven days long, it would only be possible for the intercept operators to correctly identify these nets a little over half of the time. . . this Hq felt that the time and effort spent. . . did not warrant the results.

By early September 1952, the Group had pointed out to AFSA the weakness in sending TEXTA, particularly Chinese TEXTA, to all the subordinate stations. At that time, the Group stated that it would never be certain about the TEXTA available at the subordinate stations; and since the assignments and TEXTA was continually changing, the resulting confusion would offset the gain. Hence, the Group requested that all Chicom TEXTA be forwarded only to Group and the 15th RSM.¹²⁴

122. TWX, 6920th SG to CG, USAFSS, Cite: AP 105, 6 Jun 1952. s.d. 311.

123. TWX, 6920th SG to CG, USAFSS, Cite: AP 243, 1 Aug 1952. s.d. 312.

124. TWX, 6920th SG to DIRAFSA, Cite: SG 529, 1 Sept 1952. s.d. 313.

~~TOP SECRET EIDER~~

144

~~TOP SECRET EIDER~~

The Group also influenced the adoption or refinement of various R/T collection and analytical procedures during this period. By June 1952 the R/T effort in the Far East had been developed to the point wherein USAFSS was attempting to crystallize and adopt a standard R/T program. Therefore, Headquarters, USAFSS requested the Group to furnish a detailed account of its methods and techniques employed in radio telephone intercept and analysis.¹²⁵ To this request, the Group replied.¹²⁶

. . . R/T traffic recorded and immediately transcribed when reel is filled. Typing accomplished as reel is transcribed. Operators maintain hand written log of intercept with info to aid transcribers. Believe impossible to type traffic direct from receiver, tune receiver and control recorder even with short form written. Continued tuning is necessary to intercept most nets as stations often located 5 to 10 KCS apart.

Language qualified personnel record, transcribe and process R/T traffic. All transcribing accomplished at intercept sites with preliminary analysis for diarization also completed by some. More through analysis of traffic and compilation of daily diarization and R/T summaries from 1st and 15th RADRONMO, ASA Stations and U.S. Navy radio facilities is completed at this Hqs.

Although transliterated form of typing is completely satisfactory, cyrillic would be advantageous provided a sufficient number of typewriters with Russian capital letters and English capital letters were available. . . However, believe advantage gained not worth additional expense and training. Typing training and familiarity with transliteration table could be accomplished after completion of language training due to limited time needed for such training and ease with which

125. TWX, CG, USAFSS to CO, 6920th SG, Cite: OMD-91405, 11 Jun 1952. s.d. 314.

126. TWX, 6920th SG to CG, USAFSS, Cite AP 480, 26 Jun 1952. s.d. 315.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

279

such short training is forgotten. Suggest R/T intercept training include this phase along with familiarity of recorders, receivers, transcribers and analysis procedures. Transcribers should be able to type traffic direct from reel, completing a 1200 foot reel containing tactical traffic in maximum of 3 hours.

R/T analysis as performed by this Hqs is accomplished with minimum personnel on belief that better results are obtained by complete knowledge of activity being followed.

Subsequently, USAFSS suggested some changes in the procedures and techniques employed by the Group, particularly in relation to using an abbreviated system for transcribing R/T traffic. However, the Group replied that its current system was more practical and of more benefit to analysis personnel. Also, the Group stated that voice operators preferred to type complete text on the chatter roll.¹²⁷ Furthermore, the Group pointed out that it was necessary to produce six copies of traffic, which precluded the use of ball point pens.* Therefore, USAFSS agreed to the continuation of the Group system.

Nevertheless, when the CIOP governing R/T intercept, processing and transmission procedures was published the Group was confronted with a theater problem. Actually, the CIOP required a summary sheet to be prepared and submitted from the point of intercept. In essence, this summary sheet was a duplication of the diarized reel. Also, there was no provision for couriering codeword material from Wakkanai,

127. TWX, 6920th SG to CG, USAFSS, Cite: AP 115, 3 Aug 1952. s.d. 316.

* The abbreviated system required the use of ball point pens in producing the transcribed traffic.

~~TOP SECRET EIDER~~

145

~~TOP SECRET EIDER~~

the major voice intercept site. Therefore, since the diarized voice reel was already being transmitted electrically to Group for timely processing, the Group requested that the requirement for the summary sheet be rescinded and the diarized reel be accepted in lieu thereof.¹²⁸

In connection with the increase in Group analysis responsibility and capability during this period, it was almost proportional to the influence exerted by the tactical requirements and available communications facilities. As previously stated, the field collection facilities had been increased and circuits back to the Zone of Interior had become overloaded to the extent that some field analysis was required. However, the depth of the timely tactical reports prepared as well as the completeness of the tactical requirements placed on the Group did not leave any alternative to more extensive and intensive field processing. This fact was recognized by USAFSS and, as early as June 1952, Headquarters USAFSS began phasing out of normal analysis functions relative to the Far East situation. On 20 June, USAFSS discontinued analysis of Chicom PVO and instructed the Group to stop forwarding TADS and RDF fix reports. At the same time USAFSS instructed the Group to forward only the results of the Group analysis.¹²⁹

128. TWX, 6920th SG to Hq, USAFSS, Cite: SG 925, 19 Nov 1952.
s.d. 317.

129. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD-22424, 20 June 1952.
s.d. 318.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

281

Furthermore, early in July 1952, USAFSS directed the Group to assume full responsibility for all analysis of the 3rd Long Range Air Army and 9th and 10th Air Army administrative nets. Reports from USAFSS were to be based on Group analysis.¹³⁰ Moreover, during August, USAFSS phased the responsibility for exploitation of low-level crypt systems into Group analysis,¹³¹ and instructed the Group to commence traffic identification functions on all Morse traffic.¹³²

Detachment 151 Operations Improved. Meanwhile, during this period, the Group attempted to improve the quality of intelligence reports produced by the unit in Korea. By necessity, this problem had to be approached from the processing standpoint. Hence, the Group began action designed to increase the effectiveness of initial pro-

25x3

P.L. 86-36
EO 3.3b(3)

151 as advisable. This unit would process traffic from the U. S. positions, using AFSA recoveries, and disseminate the results directly to the 5th Air Force. However, this effort required a clearable Korean

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130. TWZ, CG, USAFSS to CO, 6920th SG, Cite: OAD-22624, 3 Jul 1952.
s.d. 319.
131. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD-23257, 21 Aug 1952.
s.d. 320.
132. 1st Ind (Ltr., Hq USAFSS to CO, 6920th SG, Subj: Packaging of Raw Material, 24 June 1952) Hq, 6920th SG to CG, USAFSS, 30 Aug 1952. s.d. 321.

146

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

translator, which the Group believed AFSA should supply.¹³³

A translator was supplied and, by August, the effort was well under way. By that time, Major Cho* of Detachment 151 was concentrating on air traffic. The ROK crypt analyst had organized a traffic analysis section and was indicating his own system and not designations on all translations. Also, an English translator was being phased into the Cho effort so that USAFSS could handle the problem in the future. Although the AFSA recoveries were being used in conjunction with the Cho effort, they were used only by indoctrinated U.S. personnel.¹³⁴

In addition, an Intelligence Production Officer was sent from the Group to Korea to assist Detachment 151 in compiling spot items of intelligence nature.

Finally, a small support processing effort was established at the Group to collate the Detachment products and furnish continuity on personalities, airfields, etc. This action was also in support of the decision to develop a U.S. capability for production of North Korean COMINT in case USAFSS lost its indigenous capability (Major Cho).¹³⁵ The activity had increased by early November to the extent

P.L. 86-36
EO 3.3b(3)

133. TWX, 6920th SG to CG, USAFSS, Cite: AP 720, 8 Apr 1952. s.d. 322.

134. TWX, 6920th SG to CG, USAFSS, Cite: AP 229, 1 Aug 1952. s.d. 323.

135. Ltr., 6920th SG to CG, USAFSS, Subj: Semi-monthly Progress Report Number 25, 27 Sep 1952. s.d. 324.

* Major Cho, who had been promoted and decorated by that date, was reading the backlog of North Korean Air traffic passed in the

25x3

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

283

that the Group consolidated all effort relative to exploitation of enemy air combat tactics in Korea. This consolidation was accomplished to furnish a closely coordinated technical backup and intelligence reporting service for the Chicom, Russian and North Korean air voice and associated PVO effort.¹³⁶ Also, AFSA supplied an experienced Korean linguist for the Group effort. This permitted the Group to exploit the AFSA and USAFSS recoveries which could not be given to the Cho unit.¹³⁷ However, Detachment 151 continued to work with the major Russian, Chinese and North Korean GCI problem throughout the period,¹³⁸ although the Group did handle dissemination of decrypts.¹³⁹

Air Force Utilization of TACOMINT. The TACOMINT support of the Tactical Air units during 1952 was recognized by those units in many ways. However, the most complete evaluation of this support was made by the Director of Intelligence, 5th Air Force, in Volume VIII of "Tactical Intelligence Activities in Korea." In the introduction to the Section on Use of Communications Intelligence by Fifth Air Force that office wrote:¹⁴⁰

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136. TWX, 6920th SG to CG, USAFSS, Cite: AP 903, 10 Nov 1952. s.d. 325.
137. TWX, 6920th SG to CG, USAFSS, Cite: SG 103, 28 Nov 1952. s.d. 326.
138. TWX, 6920th SG to CG, USAFSS, Cite: AP 773, 1 Nov 1952. s.d. 327.
139. TWX, 6920th SG to CG, USAFSS, Cite: AP 221, 29 Sept 1952. s.d. 328.
140. Volume VIII, Tactical Air Intelligence Activities in Korea, TSC 2276.

147

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

Communications Intelligence is of direct practical value to a tactical Air Force. This study has been prepared in order that those who have been instrumental in providing Fifth Air Force with a communications Intelligence capability will be cognizant of the results.

Concerning the value of TACOMINT to the Tactical Air Force, the Director of Intelligence cited the following ways and areas in which TACOMINT support had been beneficial to the 5th Air Force.

Passage of Warning: Teams one and two of Detachment 151, 15th Radio Squadron, Mobile, 6920th Security Group participated in the alert warning service for aircraft operations, in North Korea. This participation consisted of passing radar type tracks to the Tactical Air Director Center for integration with radar information, or, action based solely upon the intercept information.

Information derived from intercept has an advantage over radar information in that the intentions of the enemy aircraft are usually known. . . This information is used to warn friendly aircraft and position UN fighter aircraft for interception of the enemy.

Flights of Non-Russian are identified to the Tactical Air Direction Center in order that UN fighters may intercept them from information passed to them by the TADC. The advantage is that such flights are usually lesser trained than the Russian flights and resultant "kills" are higher.

Targets: Analysis of Voice and C/W intercepts and the use of refined COMINT reports and publication have aided in the selection of lucrative targets. Communications Intelligence is useful in recognizing suitable fleeting targets such as troop and supply movements when used in conjunction with collateral intelligence, it aids in confirming supply buildups and main road and rail supply routes.

Alerts: Intercepted traffic and "spot" messages from COMINT producing agencies alert Fifth Air Force regarding scheduled and actual flights of enemy aircraft into North Korea.

Lost Pilots: Thorough (sic) a combination of collateral and communications intelligence, it is occasionally possible to establish the condition of UN pilots who have bailed out or crashed in North Korea.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

285

Weather: Monitoring of Chinese and Manchurian frequencies for Weather information has enabled the Weather Officers who support Fifth Air Force to forecast forthcoming weather conditions with a high degree of accuracy. This has been an important factor since using an oversimplification, Korean Weather is "born" in China and Manchuria.

Agent and Guerilla Activities: C/W intercept has on numerous occasions disclosed the enemy's knowledge regarding UN agent and Guerilla activity. It has provided information regarding captured agents and areas which the enemy is keeping under close surveillance.

Capabilities and Intentions: The efficaciousness of Communications Intelligence is most noteworthy in giving indications of the enemy's capabilities and intentions. Although this phase must be used with utmost discretion and only after careful consideration of all related factors, it can be helpful in determining the validity of enemy air and ground offensive preparations.

In addition to the above contributions, the TACOMINT effort supplied the UN Forces with information of political significance in relation to Communists charges of germ warfare,¹⁴¹ treatment of UN prisoners of war,¹⁴² and Communist air violations of the Kaesong area.¹⁴³

141. TWX, Det 151, 15th RSM to CG, USAFSS, Cite: CS 377, 26 Mar 1952. s.d. 329.

142. TWX, Det 151, 15th RSM to CG, USAFSS, Cite: CS 782, 15 Jan 1952. s.d. 330.

143. TWX, 6920th SG to DIRAFSA, Cite: AP 538, 18 Oct 1952. s.d. 331.

~~TOP SECRET EIDER~~

148

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

287

CHAPTER VI

Revision of NSCID No. 9 To The Truce

The seven-month period narrated in this Chapter began and ended with events which exerted a great deal of influence on the entire USAFSS COMINT effort. These major events were: (1) the revision of NSCID No. 9 and (2) the signing of a truce in Korea. However, barring the effect of semantic maneuvering to retain, in principle, field operational autonomy and the influence of strategic redeployment of units to maintain an effective after-truce COMINT capability, the greatest force exerted on Air COMINT operations during the period resulted from the operational or Close Support COMINT* requirements of the Air Force. Therefore, this period was one in which the required momentum of the Air COMINT service was sufficiently forceful to condition many effects of the two major events of the period.

NATIONAL COMINT EFFORT REVISED

Although the reorganization of the U. S. COMINT structure ostensibly resulted from recommendations made by the "Brownell Committee" after its survey of the procedures for production of COMINT, it could well have been the accrued effect of many months of experience and negotiations on the part of the agencies concerned. Irrespective of the possibilities, the U. S. COMINT effort was reorganized and the

* Henceforth, the term "Close Support COMINT" will be used in lieu of the term "TACOMINT" in the narrative of this study, except in the case of quotations. This change in nomenclature was made for consistency in document terminology.

~~TOP SECRET EIDER~~ 149

~~TOP SECRET EIDER~~

National COMINT Directive, NSCID No. 9 (Revised), dated 24 October 1952, was promulgated. This directive placed all COMINT collection and productions resources of the United States under the operational and technical control of the Director, National Security Agency (DIRNSA). Further, the DIRNSA was authorized direct access to, and communication with, any COMINT element on any matter of operational or technical control and was given authority to obtain any information or intelligence material desired from the COMINT element. The Director of NSA could, however, when deemed necessary for close support of elements of the Armed Forces or other agencies being served, delegate direct operational control of specific COMINT facilities and resources to military commanders or to the chiefs of other agencies being supported. The length of these periods and the specific projects were to be determined by the DIRNSA.¹

COMINT Production Responsibilities Determined: Following the promulgation of the revised directive, the Director of NSA and the Commander, USAFSS, opened negotiations relative to the division of Air COMINT production responsibilities. Generally, DIRNSA assumed full responsibility for the accomplishment of the normal, recurrent processing of Air intercept and related material which had to be performed at a central location in the United States in order to fulfill

1. NSCID No. 9 (Revised) 29 Dec 1952.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

289

requirements of the Air Force for COMINT.² Headquarters, USAFSS was delegated the mission of performing Close Support tasks for the Air Defense Command, i.e., working the Russian Long Range Air Force problem. In addition, NSA Operations Order 301 delegated Civil Air, Unit Capability Studies, Special Projects and Worldwide Navigational Air Responsibilities to USAFSS.

In the Far East the 6920th Security Group continued to operate under status quo conditions, mission-wise, until 20 July 1953. At that time, the DIRNSA and Commander, USAFSS, via an operational order,^{*} delegated the following mission to the Group:³

To provide, operate and control certain intercept facilities and conduct such processing as may be required to produce COMINT and ELINT in Close Support of FEAF, JADF, 5th Air Force and FEAF BOMCOM, and other Air Units committed to or which may be committed to combat operations in the Far East.

To provide, operate and control designated intercept facilities and conduct such processing as may be required to produce COMINT and ELINT in general support of FEAF and subordinate units in the Far East.

To conduct processing and reporting in support of the Strategic Air Command.

To perform assigned tasks as required to assist Headquarters, USAFSS in accomplishing its Close Support mission for the Air Defense Command.

To provide and operate additional intercept facilities and conduct such processing as may be directed by the DIRNSA in support of the National COMINT effort.

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2. Ltr., Hq, NSA to CG, USAFSS, Subj.: COMINT Processing Functions To Be Accomplished in Headquarters USAFSS, 15 Apr 1953, Serial 000230. s.d. 352.
 3. USAFSS Operations Order No. 2-53, 20 Jul 1953.

150

- * It was agreed by DIRNSA and Commander, USAFSS, that the operations orders to USAFSS units would bear a USAFSS Command line. Hence, the ELINT mission was incorporated in the same operational order with the COMINT mission.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

Operational or Mission Control Delegated. Actually, the "Lynn-Canine" Agreement for intercept control remained in effect until 20 June 1953. On that date the agreement was abrogated and the following allocation of intercept positions was instituted. Headquarters, USAFSS was allocated 40 positions for coverage of the Russian Long Range Air Force activity and five positions for coverage of the European Civil Air Nets. The 6920th Group was allocated five positions (previously known as Squadron positions) for local flexibility. The remaining Group positions were allocated to NSA for mission control until operations instructions could be issued. DIRNSA did tentatively agree to allocate 56 positions to the Group at a later date.⁴

On 13 July 1953, NSA (through USAFSS) allocated 67 positions to the Group for mission control. These positions were to be employed as follows:⁵

To cover the non-fighter tactical and administrative activity of the 9th Russian Tactical Air Army and such non-fighter and administrative activity of the 10th Tactical Air Army as could be intercepted from sites available to the 6920th Security Group.

To cover the fighter activity of the Russian Air Defense System in the Northern and Southern Maritime-Sakhalin-Kuriles area.

To cover the Chinese Communist Navigational Activity in Manchuria.

To provide Close COMINT Support to USAF commanders in Korea.

4. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD-21753, 17 Jun 53. s.d. 333.

5. TWI, Comdr, USAFSS to Comdr, 6920th SG, Cite: OAD-22026, 13 Jul 1953. s.d. 334.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

291

Of the total positions allocated to Group control and for coverage of the above targets, 16 morse and 10 voice positions were to be committed to the TACOMINT effort.

FIELD OPERATIONAL AUTONOMY MODIFIED

Implementation of NSCID No. 9 (Revised) and NSA Circular No. 1 also exerted a great deal of influence on field activities. In reality, field processing organizations (Groups and Independent Squadrons) were freed of a considerable amount of tabulation problems in respect to management of intercept positions. This effect on Group functions resulted from assigning operational missions to the Group as well as to Headquarters, USAFSS. Further, the Group was authorized the control of facilities necessary to fulfill the processing and reporting responsibilities in its assigned, general and close support missions. In relation to field exploitation, only the technical support mechanics were modified. While the trend toward centralization of control of all COMINT was authorized and embodied in the above directives, in actual practice each processing echelon was given more authority to conduct its assigned mission.*

Group Collection and Control Effort. As previously stated, the 50-50 mission assignment implemented by the Lynn-Canine Agreement generally prevailed until June 1953. Hence, the Group continued to

* The evaluation of the effect of the above directives on field operational autonomy was furnished by Mr. Ralph J. McCarty, Technical Advisor, AFSCC.

HQS USAFSS TSC No 59-09525

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Page.....151 of 192 Pages

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

conduct collection activities in consonance with its concept of operational autonomy, a factor reflected, to a certain extent, in the final delegation of field responsibilities. As late as 28 January 1953, the Group pooled several navigational air cases into one assignment at one position. This change was made in order to utilize the intercept capability to its fullest capacity. Actually, several of the cases on assignment had been "nil heard" for some time. Hence, it was believed that one position on rotating monitorship could guard the frequencies used by the target cases during their most active period (1800 to 2000Z) and act as a tip-off position.* Thus, more productive assignments could be given the positions normally engaged.⁶

Moreover, the Group again demonstrated the need for intercept flexibility in February 1953 in relation to intercept control. At that time, NSA instructed the Group to place 25x3 on coverage at USA 54B (Okinawa). The traffic from this case was highly desirable at the Group because of the Weather by-products. Since Weather processing was then being performed at USA 54 (Ashiya), the Group placed the case on intercept assignment at USA 54. NSA protested the act and USAFSS instructed the Group to implement the assignment in accordance with the NSA desire.⁷ As a result, the Group reassigned

P.L. 86-36
EO 3.3b(3)

6. TWX, 6920th SG to Hq, USAFSS, Cite: SG 149, 28 Jan 1953. s.d. 335.

7. TWX, CG USAFSS to CG 6920th SG, Cite: OAD-91649, 3 Mar 1953. s.d. 336.

* Two positions were actually used as the monitoring or tip-off positions, rotating the monitorship from one night frequency to the next, continuously.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

293

P.L. 86-36
EO 3.3b(3)

the case to USA 54B although the transmission delay involved rendered the weather portion of [REDACTED] useless. Subsequently, on 6 March the Group pointed out to NSA and USAFSS that the Weather products from [REDACTED] amounted to approximately 50 per cent of all Chinese Weather being disseminated in the Far East. Further, the Group requested that the NSA decision be reconsidered and authority be granted to cover the case at USA 54 or 59 (Johnson).⁸ This authority was granted by NSA late in April 1953.⁹

By the time the Group received its mission and allocation of intercept facilities for fulfillment thereof, the Zone of Interior intercept control effort had become somewhat routine and complete in nature. By May 1953, Detachment 1 of USA 54A had begun to submit intercept activity sheets to NSA and USAFSS. This was the first time in the existence of the intercept capability in Korea that NSA and USAFSS were able to monitor intercept coverage in Korea.¹⁰ Further, by late June, NSA had established mission control numbers for assigning missions to the 6920th Group. This control tool was designed to maintain continuity by preventing loss or misplacement of mission control items.¹¹

8. TWX, 6920th SG to CG, USAFSS, Cite: SG 811, 6 Mar 1953. s.d. 337.

9. TWX, CG USAFSS to CO, 6920th SG, Cite: OAD-1B-21244, 22 Apr 1953. s.d. 338.

10. TWX, 6920th SG to CG, USAFSS, Cite: SG 631, 27 Mar 1953. s.d. 339.

11. TWX, DIRNSA to CO, 6920th SG, DTG 181747Z Jun 1953. s.d. 340.

~~TOP SECRET EIDER~~ 152

~~TOP SECRET EIDER~~

Also, the Group attempted to increase the collection capacity of the established effort by adopting new techniques and inter-service exchange agreements. In relation to the first approach, it was actuated by a visit from the DIRNSA in May 1953. At that time, the DIRNSA indicated dissatisfaction with the current facilities and procedures employed by intercept operators in selecting antennas. Various operators did have facilities to provide more or less rapid antenna selection by multi-coupler arrays at trick chief consoles.¹²

Therefore, when the DIRNSA expressed his concern about the lack of such facilities for selecting antennas by pushing a button or turning a switch, the Group took unilateral action to solve the problem. It directed all the RSM's, in so far as possible, to provide more than one antenna to all search positions and positions with moving targets or positions which otherwise needed instant choice of antennas. This was to be accomplished by installing multiple choice* facilities. Since the Group had only four multicouplers, it requested USAFSS to immediately procure coaxial switches in sufficient quantity to meet this requirement and informed USAFSS that rotary tap switches, if available, could be used in the interim.

12. Hq, 6920th SG Staff Study, Subj.: Radio Frequency Distribution, 11 Oct 1953.

13. TWX, 6920th SG to 1st RSM, Cite: GCM 0269, 2 May 1953. s.d. 341.

14. TWX, 6920th SG to CG, USAFSS, Cite: GCM 0265, 2 May 1953. s.d. 342.

* These interim multiple choice facilities were to consist of three or more coaxial cables from each intercept position selected to the multicouplers and a coaxial switch at each of the positions, which would allow the operator to select any one of three or more antennas for his receiver.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

295

However, USAFSS disapproved the Group request for the switches on the basis of the expense involved for an interim solution to the problem. Also, USAFSS requested that the changeover be held in abeyance until proper components could be procured, and an economical solution to the radio frequency distribution problem could be developed. Headquarters, USAFSS did approve the proposed changeover to automatic antenna selection on search positions, providing the ratio was one search to 10 regular intercept positions.¹⁵

In respect to the inter-service agreement, the Group and the Navy [USN 39] completed arrangements in early February 1953 whereby the Group would receive all the Russian naval air copied by USN 39 and its subordinate units. This agreement resulted from the conclusion by the Group and USN 39 that they were giving their consumers incomplete and sometimes, inaccurate pictures of Russian air activity because of the division of naval and military air responsibilities. Hence, the Group would use the combined intercept for analysis of and reporting on the Russian air problem. In essence, the agreement provided for USN 39 to discontinue air reporting and forward its technical summaries to the Group if the results proved satisfactory¹⁶ and, with FRAAF approval, for the addition of CINCPACFLT and COMNAVFE to the Group's list of intelligence customers. By March 1953 the arrangements had been implemented.

15. TWX, CG, USAFSS to CO, 6920th SG, Cite: OIR 2-93674, 8 May 1953. s.d. 343.

16. Ltr., Hq, 6920th SG to CG, USAFSS, Subj.: Semimonthly Progress Report Number 34, 11 Feb 1953. s.d. 344.

~~TOP SECRET EIDER~~

153

~~TOP SECRET EIDER~~

296

and the Navy customers had expressed satisfaction with the results.¹⁷
In addition, the Navy, by arrangement with the Group, established an R/T position at the Wakkanai Detachment to support the air intercept effort. This action included the furnishing of equipment and personnel for the position, and recorder equipment for two USAFSS positions.

Group Technical Reporting Effort. The trend toward more technical reporting by field units continued to increase through-out the period under consideration in spite of the early stand taken by the 6920th Group* on the requirements and subsequent attempts to modify the program, particularly the TECSUM requirements. By late January 1953, the Group had implemented TECSUM Reporting (a CIOP 307-1) as follows: All air/ground and PVO summaries were collected from the intercept sites by the Group, which compiled these TECSUMS and forwarded them to NSA and USAFSS on a 24-hour basis. However, all administrative and ground/ground summaries were prepared and forwarded by the intercept sites on a 24-hour basis, which was in accordance with the CIOP. This modification of the CIOP by the Group was accomplished to permit timely theater reporting, early forwarding of the TECSUMS and a reduction of the analytical load at the Group and the intercept sites.¹⁸

17. Ltr., Hq, 6920th SG to CG, USAFSS, Subj.: Semimonthly Progress Report Number 35, 27 Feb 1953. s.d. 345.

18. R&R, ODC to CCG, Subj.: Weekly Progress Report 26-30 Jan 1953, 2 Feb 1953. s.d. 346.

* See Technical Reports, Chapter V, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

297

Subsequently, NSA expressed dissatisfaction with the preparation of TECSUMS at Group level. Apparently, this dissatisfaction resulted primarily from the NSA concept that one of the chief values of the TECSUM was the elimination of the central processing activity or step between the intercept site and the Zone of Interior processing centers. This concept was expressed by NSA-7226 in March 1953.¹⁹

The basic problem is to get the greatest amount of useful information forward in the least amount of time. At the same time, unnecessary re-processing or re-doing of the same analytical steps at every level (intercept station, field center and Washington) must be guarded against....

The 6920th Group favored a centralized processing procedure. The Group believed that optimum utilization of analytical personnel could be realized by requiring detachments to send in on a six-hour basis "diarized traffic" which required very little processing. Continuous analysis could be performed at the Group for timely reporting. The consolidation at the Group could be accomplished with fewer personnel than would be required if analytical personnel were deployed among the various detachments to process all types of traffic. Further, the Group would have to duplicate the point of intercept analysis to some extent in meeting the theater requirements since consolidation of reports on the same activity and units from different sites was necessary. Actually, USAFSS agreed that the Group concept was valid as

19. Memo, NSA-7226 to NSA 063, Subj.: Philosophy of the Daily Technical Summary (TECSUM), 31 Mar 1953. s.d. 347.

~~TOP SECRET EIDER~~

154

~~TOP SECRET EIDER~~

193

long as there was a shortage of analytical personnel. However, USAFSS also recognized the detrimental effect the concept would have on the ability of an RSM or detachment to operate independently in an emergency.²⁰

Furthermore, the Group advanced several additional suggestions relative to modification of the technical reporting program during the first half of 1953. During April 1953 the Group suggested that the point of intercept consolidate all references to RP aircraft and RDF bearing into one TECSUM.* NSA disapproved the suggestion for reason of timeliness.²¹ Again in early May the Group suggested that it be allowed to delete RP aircraft call signs from Russian ground/ground TECSUMS and combine them with the Russian Morse and radio telephone TECSUMS. However, the organization in NSA for processing TECSUMS was such that NSA would not accept the combined TECSUM format because it would hamper key and code recoveries and their rapid dissemination to the field. USAFSS agreed with the need for fast technical support. Hence, the suggestion was rejected.²²

In relation to modification of the TECSUM format, particularly the ground/ground TECSUM the 1st RSM made the following evaluation and request in June 1953 in a message to the Group:²³

20. Memo for Colonel Gordon W. Wildes, Subj.: Background Information on 6920th SG Implementation of CIOP 307-1 (Daily Technical Summaries - TECSUM), 3 Jun 1953. s.d. 348.

21. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD 21424, 13 May 53. s.d. 349.

22. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD-1B-21558, 28 May 53. s.d. 350.

23. TWX, 6920th SG to CG, USAFSS, Cite: GCO-2-1176, 14 Jun 1953. s.d. 351.

* NSA was then accomplishing that function at Arlington Hall Station.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

299

Re ground/ground TECSUM: At present time the first group of all weather messages on 25x3 nets are entered in the TECSUM. This report arrives at your Hqs at least 24 hours after the cut off time (2100Z) for traffic produced, rendering the weather information useless. Would like to process these messages in the same fashion as practice (no of messages exmitted each day and one sample entered in the NT register) if possible. This will make it possible to place more emphasis on more valuable traffic as well as make the TECSUM more brief.

P.L. 86-36
EO 3.3b(3)

The Group forwarded the RSM request to Headquarters, USAFSS on 14 June with the following comment:²⁴ "Proposed change considered and worthy of implementation." "Request your concurrence." USAFSS passed the proposal to NSA.²⁵ Subsequently, the Group was authorized to delete all weather message data from the TECSUM except the preamble.²⁶

In summary, USAFSS and the Group were able to somewhat reduce or realign the analytical workload, which reduced duplication and provided a more compact and timely service to the Theater and Zone of Interior customers. During May 1953 the Group pointed out to USAFSS that the Group's Russian Air Activity Report, prepared monthly, duplicated, to a great extent, the information released in the Daily and Weekly Reports prepared by USAFSS. Moreover, the preparation of the Monthly Report by Group required the discontinuance, at least in part, of analysis activities essential to the daily Theater and Z/I reporting effort. Hence,

24. TWX, 6920th SG to CG, USAFSS, Cite: GCO-2-1176, 14 June 1953.
s.d. 351.

25. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD-1B-95033, 16 Jun 1953.
s.d. 352.

26. TWX, Comdr, USAFSS to CO, 6920th SG, Cite: OAD-95765, 3 Jun 1953.
s.d. 353.

~~TOP SECRET EIDER~~

155

~~TOP SECRET EIDER~~

300

the Group requested permission to discontinue the Monthly Report as such.²⁷
Both NSA and USAFSS concurred with the proposal, providing the significant highlights, which were reported in the Monthly Report, would be added to the "Soviet Far East AOB Publication."²⁸

Furthermore, late in May 1953, USAFSS instructed the Group to ascertain if theater customers would be satisfied with two daily intelligence reports in lieu of one currently disseminated. The intent was to divide the Daily INTSUM into two parts. Part one would be disseminated twice daily to all customers, while part two would be disseminated only to NSA, USAFSS and any consumer which required that information.²⁹ The Group readily agreed to the plan because it would allow the Group to release one report by 0900Z (1900I) each day, as well as permit aircraft activity and weather information to be released at a later time. (1900 local time).³⁰ This procedure was adopted to supply the customer with usable intelligence every 12 hours.

Weather Operation Effort. Meanwhile, the division of responsibilities in the Weather intelligence production effort was revised again during this period. During early February 1953 the Weather Section at NSA (NSA-73) suggested a new division of effort on the Chicom Weather

27. TWX, 6920th SG to CG, USAFSS, Cite: GCO 1-C251, 1 May 1953. s.d. 354.

28. TWX, CG USAFSS to CO, 6920th SG, Cite: ODD-2B-21416, 13 May 1953. s.d. 355.

29. TWX, CG, USAFSS to CO, 6920th SG, Cite: ODD 94433, 29 May 1953. s.d. 356.

30. TWX, 6920th SG to Hqs, USAFSS, Cite: GCO-1-0842, 31 May 1953. s.d. 357.

* Part II contained the statistical or not readily usable information. Several of the customers soon requested the discontinuance of this report to them.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

301

problem. Generally, the proposal was as follows: The Weather Section at the Group would write up traffic, beginning 1 February 1953, for all six areas in Communist China. The traffic would then be [25x3] [b1]

for map analysis broadcasts. All 2600 series books would be returned to NSA for key and index studies. NSA would conduct map analysis on

[25x3] reports to identify unknown index numbers, conduct systematic checks on [25x3] and provide technical support.³¹

NSA was decrypting and compiling all [25x3] by date and time and planned to send the Group copies for cribbing material. The 6920th Security Group concurred with the proposal, providing adequate personnel could be assigned to perform the extra tasks.³² As a result, Head-

quarters, USAFSS suggested an increase of eight persons, which was agreed to by NSA.³³ By late March the [25x3]

the Chicom Weather had been shuffled. This allowed earlier exploitation of the weather broadcasts from certain of the areas.

Consequently, the Group again requested the additional personnel be assigned immediately.³⁴ The personnel were transferred to the Group late in March 1953.³⁵ Subsequently, the Group requested that the

P.L. 86-36
EC 3.3b(3)

31. TWX, DIRNSA to 6920th SG, DTG 131923Z Feb 1953. s.d. 358.

32. TWX, 6920th SG to CG, USAFSS, Cite: SG 520, 17 Feb 1953. s.d. 359.

33. R&R, ODC to CCG, Subj.: Weekly Progress Report 16-21 Feb 1953, s.d. 360.

34. TWX, 6920th SG to CG, USAFSS, Cite: GCO-L-0289, 20 Mar 1953. s.d. 361.

35. TWX, CG USAFSS to CO, 6920th SG, Cite: CID-92220, 24 Mar 1953. s.d. 362.

156

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

302

responsibility for logging the map analysis section of 25x3 be re-
turned to NSA. This request resulted from the fact that the Group had
been unable to produce any usable SWI from this section because of in-
sufficient depth. Also, the Group believed that the personnel involved
could be more advantageously employed on other sections of this weather
broadcast.³⁶

P.L. 86-36
EO 3.3b(3)

CLOSE SUPPORT COMINT STATUS REVIEWED

As previously stated in this study LSIB approved a USCIB request
for authority to tactically exploit COMINT in Korea. However, this
approval was an interim or emergency measure and preceded a joint USCIB-
LSIB review of the proposed revision of Appendix "B" of the BRUSA Agree-
ment. The proposed revision, as approved by USCIB, divided COMINT into
three categories, i.e., I, II and III. Category I* was the specie deemed
most applicable to the tactical situation. It was defined as:

That communications intelligence which may be subject to the
lease (sic) stringent regulations and which may require more
extensive dissemination in order to provide for effective
utilization.

In general, it was to include certain types of low-level COMINT agreed
upon specifically and virtually by USCIB and LSIB. This type or category
of COMINT would not be classified lower than confidential and would not
bear a codeword designation. Further, it could be given to non-indoctrina-
ted personnel and persons who were assigned to duties in hazardous areas.

36. TWX, 6920th SG to DIRNSA, Cite: GCO-4-0890, 2 Jun 1953. s.d. 363.

* Originally, the category designated as III had been the low-level type
of COMINT. However, the category designators were reversed, i.e.,
low-level COMINT became Category I and high-level COMINT became
Category III.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

303

It also could be used as target information, providing it was given suitable cover.

This proposed revision of Appendix "B" was approved by LSIB in March 1953, an act that authorized USCIB to issue implementing directives for the policy agreements.³⁷ Nevertheless, USCIB did not issue any implementing directives during 1953 relative to the exploitation of Category I COMINT. Furthermore, the proposed AFR for tactical exploitation of COMINT was not published although it was again revised to reflect the USCIB-LSIB Agreements.³⁸

COMINT Support in Korea. Meanwhile, by late fall and early winter 1952 the value of Close Support COMINT to the 5th Air Force had again begun to decline.* This decline in effectiveness resulted from several factors. The primary reason was that the Chicom PVO system virtually ceased passing tracks on their own planes and Russian aircraft and the Russian fighters began converting to VHF transmissions. The remaining information could not be passed to the AC&W controller because it could not be disguised as radar information. Therefore, the effort, from a tactical standpoint, was producing intelligence of

37. USCIB Paper 14/270, 2 Apr 1953.

38. Ltr., Hq USAFSS to CO, 6920th SQ, Subj.: Policies and Directives Affecting Security and Dissemination of Communications Intelligence, 13 Mar 1953. s.d. 364.

* See Modification of TACOMINT Techniques, Chapter V, this Study.

~~TOP SECRET EIDER~~

157

304

~~TOP SECRET EIDER~~

very limited usefulness. As a consequence, the Group had to choose between two alternatives, i.e., close down its Close Support COMINT filter center or physically collocate certain positions of the effort with the TADC.*

The advantages of the latter alternative were: (a) It would permit a ready "tie-in" of voice transmissions, which were being intercepted with UN radar reflections of enemy aircraft activity. This "tie-in" not only gave a more complete picture of enemy activity, thus aiding the combat operations, but also aided in the COMINT analysis of enemy GCI traffic. Enemy cover words and zone numbers were frequently solved by matching the enemy GCI traffic with the actions and movements of enemy aircraft observed by radar. Normally, the matching of transcribed traffic with radar logs was of limited success only. The line situation in the Control Center would make clear the essentials of time, place and activity which were most difficult to reconstruct later from logs and traffic; (b) the collocation would permit rapid and secure transmission of COMINT information to the GCI controller in the TADC.** (c) It would

* As early as September 1952, the Group maintained that experience in providing a Yoke Service indicated a need for indoctrinated AC&W personnel in the TADC, so that the Centers could receive all forms of intercept material (voice, C/W, radar) and plot it on their boards in the form of tracks for direct use by the Tactical Controller. This would obviate the need for operating a duplicate plotting board by TACOMINT personnel. However, maximum teamwork and effectiveness in the USAF between combat pilots and controllers on the ground is achieved only by rotating combat pilots through short tours as controllers, then immediately back to combat. Therefore, the key TACC personnel could not be indoctrinated because they were subject to immediate return to combat duty. (Information furnished by Major Robert O. Brooks, AFSCC, Hq, USAFSS).

** Until collocation was accomplished, TACOMINT information had to be transmitted to the TADC over an open FM circuit. Thus, the possibility of compromising the effort was always present.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

305

permit exploitation of all bits of information available to the Close Support COMINT unit which could not be disguised as radar information and passed over the open circuit.

On the other hand the big problem offsetting these advantages was the fact that the COMINT effort was classified Top Secret-Codeword, while the TADC activity was classified Secret. Yet, in the opinion of the Officer-in-Charge of the Close Support COMINT effort at that time, collocation with TADC was possible without compromising the TACOMINT effort. This opinion, or more correctly, recommendation, was based on the knowledge that it was impossible to conduct an effective GCI effort without voice intercept. Further, if the enemy was aware that his GCI nets were being monitored and the information was being tactically exploited, it did not appear feasible that the enemy could curtail or drastically alter his GCI system and continue to fight an Air War.*

Therefore, the OIC of the Close Support COMINT effort, through the 15th RSM, recommended in January 1953 that part of the COMINT filter center on Cho Do be collocated with the TADC of that area. The Group approved the recommendation on 8 March 1953 and the collocation was accomplished. Within 48 hours after collocating portions of the COMINT and the TADC activity, it had become apparent that the recommendations had been valid. The Close Support COMINT effort had, at last, become

* In that respect, the TACOMINT people were well aware that the enemy was monitoring the UN Voice GCI net.

158

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

306

tactically 100 per cent effective for the first time. The ability to inform the TADC GCI Controller about the enemy's intentions two or three minutes in advance of the UN radar reflections (when radar did reflect enemy activity) of the general enemy activity proved invaluable to the UN GCI system. The "tie-in" between Close Support COMINT intercept and UN radar tracks on Communist aircraft became an effective tactical tool.

The integration on Cho Do was accomplished as follows: The COMINT unit ran landlines from its intercept positions into the TADC. These lines were strung from the output of the receivers at the intercept positions to a field phone in the TADC. A headset was attached to the field phone which allowed a COMINT linguist to sit in the TADC and listen to the Communist voice transmissions as they were intercepted at the intercept site approximately three-fourths of a mile away. The linguist sat beside the GCI Controller who was operating the radar scope. Hence, the information gained by voice intercept was given to the Controller, who instantly used it in conjunction with his radar information in the directing of UN aircraft in combat areas.

The COMINT personnel in the TADC never kept any written Codeword reference material at any time. Only the best operators were chosen for this work. Everything they needed to know was committed to memory. These operators passed the information to the Controller in non-COMINT terms in order to maintain security and to avoid confusing the Controller. Enemy flights were referred to by their radar track numbers by the operators or shown on the TADC Plot Board. If the enemy flights had not been picked

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

307

up by UN radar, the Air COMINT operators used an old radar format to alert the plotters, who would then place the track on the board. Enemy coverwords or zone numbers were translated into plain English or local slang used in the TADC. As a general rule, the COMINT operators told the Controller what the enemy was doing or what they were about to do; the Controller did not pass this information to the friendly pilots, but simply informed them as to what heading and altitude to take. Further, the pilots were warned that the information would be denied them (by the Air COMINT people or the enemy) if they were not cautious. However, the pilots were aware of what was to be done when they arrived at the place where they had been directed.*

Following the initial test period and full approval to operate with TADC, a special room was constructed within the TADF for security reasons: This permitted the Air COMINT voice operators to be separate from the TADC personnel, except those persons absolutely essential to the operation.

In relation to the success of this operation, the following verbatim account of the early collocated effort is quoted:³⁹

The most obvious value of our being collocated was that during those times when, due possibly to poor equipment and a lot of ground clutter on the radar scopes, radar was not "painting" the bandits. The only thing the GCI

* Information furnished by Major Robert O. Brooks, AFSCC, Hq, USAFSS.

39. This account of the collocated TACOMINT-TADC operations was given by Capt Delmar Lang, the officer who proposed such plans while OIC of the Korean TACOMINT effort, and was recorded by the 6920th Group Historian during August 1953. Document included in the 6920th Group History for Jan-Jun 1953.

HQS USAFSS TCC No 15-00125

Copy 1 1 Copies
~~TOP SECRET EIDER~~ 159
Page..... of 192 Pages

~~TOP SECRET EIDER~~

308

Controller had to go on in the directing of UN aircraft was the information we were able to give them from our intercept of the Communist Voice nets.

There were times--and I saw it myself--when the GCI Controller, even when he had bandits tracks on his scope, would, for all practical purposes, ignore his radar information and operate solely on what we gave him. One specific instance of the value of collocation was during March of 1953 and this was one of the things that helped sell the TADC people on our being with them.

We had enemy voice transmissions that indicated there were UN aircraft east of Cho Do, operating over the mainland approximately in the vicinity of SARIWON. The TADC radar did not indicate any UN aircraft in that area whatsoever, but we got repeated voice transmissions vectoring the Chinese Communist flights down into that area and telling the flight to attack the UN aircraft there. We insisted to the TADC people that UN aircraft were there and finally, due to our insistence, they TADC called on every VHF channel they had and determined there were UN Navy aircraft operating in that area, which normally did not check in with TADC anyway. They passed a warning to the Navy aircraft, the Navy aircraft pulled out heading south, and almost simultaneously we picked up voice transmissions reporting the fact that the UN aircraft had gone south and recalling their own bandit flight.

Another good specific example was when, due to the ground clutter which I mentioned before, bandits would come south out of the Antung area, and the UN radar would not be "painting" them. The rugged terrain made for TAKUSAN* ground clutter, and the bandits would get way down around Cho Do before radar would pick them up. In many such instances we were able to indicate to the TADC that the flights had taken off, that they were on their way south, give position and location on the flights as they came south and help TADC to either get the UN aircraft out of the area or direct them into the area if they wanted to attack the Commie flights, and this was often as much as five or ten minutes before they the controller would pick up the bandit tracks on their radar.

* Japanese equivalent for "very much", "a great amount", etc.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

309

During April 1953, this collocated COMINT capability was augmented by implementing a capability for exploiting the NKAF voice GCI transmissions. Another intercept position (voice) was installed on Cho Do and some of Team Three (Korean) operators were moved to Cho Do to perform the intercept and translation. This unit, for security reasons, was established in a quonset hut separate from the Close Support COMINT effort. However, a landline was strung from the South Korean intercept unit to the TADC. The South Koreans would intercept, translate and pass their information orally over the landline to a USAFSS airman in the TADC. The airman would relay the information to the TADC controller. Therefore, the Air COMINT capability on Cho Do was able to exploit Russian HF/VHF transmissions and Chinese Communist and North Korean HF transmissions.

The Officer-in-Charge of the original operation made the following retrospective comments concerning the significance of this operation on future Close Support COMINT programs as well as operational conclusions about the collocated effort:⁴⁰

. . . The experience we have had with TACOMINT from both ends, i.e., prior to our Cho Do Collocation with TADC and subsequently, indicates positively that our only successful utilization of TACOMINT is through collocation. If we are not collocated, our hands are tied, for security reasons, on what we can pass over FM circuits or any other kind of circuit, and that alone limits our effectiveness tremendously.

40. Ibid.

~~TOP SECRET EIDER~~

160

~~TOP SECRET EIDER~~

Altitudes were one of the biggest things we were able to give the TADC. Their height-finding equipment just was not effective and did not have sufficient range to give them the information they had to have, as far as bandit altitudes were concerned. Just an altitude by itself with some idea as to where the aircraft is located is worth its weight in gold to the TADC. And of course our being able to tie our info in with radar makes an almost 100 per cent track. Being able to anticipate the bandits intentions two, three, four and five minutes ahead of the radar reflection is invaluable.

. . . At, say, 450 miles an hour, a MIG covers a lot of distance in four or five minutes, and when radar shows him on a southerly heading, in actuality he may have turned and headed back North. We were able to give them that from TACOMINT by collocation.

VHF-RDF Close Support COMINT Effort.---RDF became a Close Support COMINT tool during this period. Actually, the best RDF assistance to the Air COMINT effort in Korea was developed and employed during the last 8 months of the Korean conflict. This effort was in the VHF spectrum, because the nature of the terrain was not too favorable to HF/RDF. In brief, Detachment 3 of the 15th RSM obtained a VHF RDF unit from the 608th AC&W Squadron and installed the unit (AN/URD-2) in close proximity to its voice positions. This was done to enable the voice operators to obtain bearings on VHF signals at any time. By employing the RDF unit in conjunction with voice intercept, the detachment reduced (by 25 per cent) the time required to recover zone system numbers used by the Russian GCI networks. It was also used as a visual aid in VHF search, for the signals picked up on the AN/URD-2 had very good scope presentations although the same signals were unreadable or barely readable on the BC-787 VHF receivers.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

311

The RDF assistance in the recovery of the Russian GCI zone system was accomplished in many instances by a single line bearing intersecting a heading of enemy aircraft departing from a known geographic location. For instance, an enemy flight departed Antung on a heading of 135 degrees. The flight leader then reported he was in Zone 14. A line bearing was then read on the VHF RDF equipment and plotted to the intersection of the heading taken by the bandit flight. Thus, Zone 14 was established. However, the zones could be located by employing VHF RDF equipment without the known heading of the bandit flight. A bearing would be taken on a signal when the flight leader gave his location in a particular zone. Since the zone reported had to be somewhere along the bearings taken, a series of such bearings soon disclosed the exact zone system. Moreover, the VHF RDF effort often assisted the analysts in equating the Chinese "Playground" system. This RDF contribution was performed by determining the locations of Chinese flights in relation to known Russian flight positions at a particular time. ¹¹

11. Ltr., w/Incls, 15th RSM to Comdr 6920th SG, Subj.: Justification for AN/URD-2 (VHF Direction Finding Equipment), 8 Oct 1953. s.d. 365.

- * The Chinese "Playground" System was recovered as follows: A Russian flight, whose position was known, would report "I can see the pigeons" (Chinese aircraft). The Chinese flight would report "I am over 'Playground' 14." Thus, the Chinese had to be within 5-15 miles of the known Russian flight. Therefore, "Playground 14" had to be in that area. Hence, after a number of these bearings had been collated with the voice incidents, the system was determined. (Information furnished by Captain William C. Schwitzgebel, former Assistant Operations Officer, 15th RSM).

~~TOP SECRET EIDER~~

161

~~TOP SECRET EIDER~~

312

ROK Participation in the COMINT Effort. By late February 1953 NSA had referred the matter of ROK participation in the U.S. COMINT operations to USCIB. In referring the matter to USCIB, NSA pointed out that both ASA and AFSS had utilized the services of non-U.S. personnel in Korea to perform intercept and processing tasks against enemy communications. As a result some questions had arisen over the extent of operational support or guidance that could be furnished. Hence, NSA recommended that, in accordance with the principles set forth in Appendix "B" of the BRUSA Agreement, the maximum U.S. assistance to such units or persons be established.⁴²

P.L. 86-36
EO 3.3b(3)

In general the criteria recommended by NSA followed the practices already established in Korea except for two instances. Paragraph 2c (11) of the memorandum to USCIB stated that U.S. intercept could be furnished to foreign COMINT units only if. . . "both ends of the link passing the traffic were in Korea." USAFSS personnel believed this recommendation was not consistent or realistic with the situation since some of the North Korean Communist lines terminated in Manchuria. At that time Detachment 1 was supplying its ROK unit with sanitized traffic from one USAFSS position-25x3 service). This traffic included coverage of one NKAF station in Manchuria.⁴³ USAFSS also pointed out

⁴². TWX, 6920th SG to USAFSS, Cite: SG 597, 20 Feb 1953. s.d. 366.

⁴³. Ibid.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

313

to NSA that another recommendation relative to general processing guidance seemed unduly restrictive. The recommendation in question prohibited the provision of standard crypt texts or other unrestricted training material to the ROK units.⁴⁴

Meanwhile, the question of consolidating the ASA and USAFSS non-U.S. units was considered again during this period. This problem was also referred to USCIB in April 1953, along with the recommendations advanced by both of the Service COMINT organizations concerned. Air Force, FEAF, USAFSS and 5th Air Force strongly opposed the merger of the two units.⁴⁵ The primary objection to the merger advanced by the Air Force units was based on the air requirement for a direct and immediately responsible COMINT source on the NKAF and on nets producing Air target information. The COMINT agencies' stand on the problem was presented to USAFSS by the 6920th Security Group on 8 April 1953, as follows:⁴⁶

. . . Relative effectiveness and proficiency Cho and Kim efforts approximately equal with Kim slightly better on the analysis and Cho better on cryptanalysis. . . . Quality of intercept and control is approximately equal altho Cho proved better than Kim on NSA commercial coverage. Relationship Cho to U.S. Air operations in Korea at present in source of (a) target info and (b) general intelligence on NKAF. There is no inherent reason why such info could not be produced by combined unit and furnished 5th Air

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44. TWX, CG, USAFSS to CO, 6920th SG, Cite: OID 20502, 19 Feb 1953. s.d. 367.
45. TWX, CG, USAFSS to CO, 6920th SG, Cite: OID 21085, 6 Apr 1953. s.d. 368.
46. TWX, 6920th SG to Hq, USAFSS, Cite: GCO 0737, 8 Apr 1953. s.d. 369.

~~TOP SECRET EIDER~~ 162

~~TOP SECRET EIDER~~

324

Force on reasonably rapid basis. Cho's greatest value and strongest reason for his remaining with Air Force is that he is our sole capability for exploiting any future NKAF traffic of immediate tactical value.* Channel from Cho to 5th Air Force is Cho to Det 1 (same location) to SSO, 5th Air Force by courier. Items of immediate interest go electrically. Channel from Kim to 5th Air Force is Kim to 501st CRG by courier thence to SSO, EUSAK by courier thence to SSO, 5th Air Force by courier. Kim material arrives 5th Air Force approximately one day later than Cho material. . . .

P.L. 86-36
EO 3.3b(3)

Cho's Detachment, at that time, was operating nine C/W positions for USAFSS, five of which were assigned to Air coverage. Of the remaining four, two positions were monitoring commercial nets,** and two were covering (sampling) military cases. This latter assignment also included some military cases which contained air target data. Although the value of this data was not great, the coverage was maintained because of scarcity of air traffic. Prior to the mid-March change in the 25x3 system, North Korean air nets had been quite prolific. As a matter of record, they constituted the primary source of intelligence on the NKAF.***

* ROKAF personnel under Major Cho did not participate in the "direct-to-TADC" type of operations. Their effort consisted primarily of furnishing decrypts through secure SSO channels. Hence, the tactical value referenced were decrypts which could be acted upon tactically, but which were handled by secure COMINT means.

** The Commercial Nets were being covered by request of the 5th Air Force which used the intelligence for targetting information. After the end of the conflict, the coverage was dropped. However, NSA expressed a requirement for the coverage and it was resumed.

*** Major Cho

25x3

25x3

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~~TOP SECRET EIDER~~

315

Furthermore, during April 1953, an ROK effort was concentrated on search for Kaesong Conference traffic. After resumption of the "talks", the Group directed Detachment I to begin search for possible traffic. Hence, one ROK intercept position was assigned to 24-hour coverage of the possible frequencies for 15 days. However, the result was negative, and it was the opinion of Major Cho that the traffic was being passed over a landline. The 5th Air Force when apprised of the situation, made several unsuccessful attempts to cut the suspected land-line.* Thus, one phase of COMINT operations was ended.⁴⁷

Redeployment of Close Support COMINT Facilities. Because of the possibility of a Communist offensive against Seoul** and the additional possibility that the Chosen Christian University site would soon be returned to school authorities, the Group, early in February 1953, directed the 15th RSM to locate and establish a suitable alternate site south of HAN River for Detachment I. A site was selected adjacent to K-55 in the vicinity of OSAN-NI (about 26 miles south of Seoul). Two vans and several portable antennas and jacksaw huts were air-shipped to Detachment I from the 1st RSM at Misawa. Then, a four-position capability

47. TWX, 6920th SG to Hq, USAFSS, Cite: GCO 1-0558, 16 May 1953

* During the early days of the Kaesong Conference, the Communists installed a land-line for transmission of conference traffic. However, friendly agents (OSI) managed several times to cut these lines and disrupt land-line communications.

** Communist offensive plans were reported by a reliable covert source. This intelligence was accepted by the theater as probably true, and the 8th Army estimate gave the Communists the capability. Hence, the move was urgent.

~~TOP SECRET EIDER~~

163

~~TOP SECRET EIDER~~

316

was installed at the alternate site on 6 February.* Technically, the new site was soon viewed as much better than the CGU site because several previously unreadable out stations were copied from the first day.

Since K-55 was being developed as the major USAF base in Korea and was the only one firmly leased to the United States, the Group recommended the site as the best permanent location for USAFSS facilities in Korea. Also, the Group began negotiations for attachment of Detachment I to K-55,** although the operations site was to be located approximately two miles east of K-55. Further, the remainder of Detachment I capabilities were phased into the new location as rapidly as possible without disrupting the tactical operation.⁴⁸

As for the redeployment of the Cho Do effort, the Navy had accepted the responsibility for evacuation of the capability.⁴⁹

48. Ltr., Hq, 6920th SG to CG, USAFSS, Subj.: Semimonthly Progress Report Number 34, 11 Feb 1953. s.d. 344.

49. Ibid.

* This capability was composed of one weather and three lower priority positions. It was scheduled to supply continuous support to the 5th Air Force in case Detachment I was forced to redeploy.

** The Detachment move was included in the 5th Air Force Redeployment Plan late in Feb 1953.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

317

Therefore, it was decided to continue operations on Cho Do until the AC&W unit was relocated.⁵⁰ Meantime, the terms of the prospective truce in Korea forced the selection of an alternate site for Detachment 3. According to the terms, all UN personnel would have to evacuate all islands north of the 38th parallel.* Again, to provide continuous COMINT support to the 5th Air Force during redeployment, an interim capability--"Project OVERLAP"-- was established at Kimpo Air Base (K-14). This capability consisted of one Russian VHF-GCI position, one Chinese Communist HF-GCI position and one NKAFF HF GCI position. Prior to the implementation of "Project OVERLAP" about 9 June 1953, preparations were begun to provide facilities on PAENGYONG-DO (K-53) as an alternate location

50. In connection with the TACOMINT service furnished the 5th Air Force by the Cho Do effort, the Commanding Officer of the 502nd AC&W Group requested permission to tie into the communications channel from Cho Do to Seoul. However, Headquarters, 5th Air Force disapproved the request, thereby increasing the amount of information which could be securely passed to the TACC on Cho Do for exploitation. At that point, there were some expressed beliefs within the 5th Air Force to the effect that the TACOMINT capability should be a part of AC&W. However, the success of the collocated TACOMINT AC&W effort caused the AC&W customers to favor a status quo operation. This status was also favored by the current Commander, 5th Air Force. (Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 41, 28 May 1953. s.d. 371).

* Cho Do was located north of the 38th parallel.

164

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

for AC&W and USAFSS facilities on Cho Do and for the USAFSS ELINT team. This site was on an island located just south of the 38th parallel and a few miles off the West Coast of Korea. The plan was later approved, and redeployment was directed by the 5th Air Force.⁵¹ The actual move was made during the three-day period immediately following the truce (27 July 1953).

COMINT DEVELOPMENT AND PLANNING EFFORT

Throughout the period under consideration the effort devoted to supporting or developmental COMINT tasks or projects continued to increase. Although the approaches to the accomplishment of these tasks remained somewhat similar to those developed by the Group prior to this period, the participation in the projects by other agencies was more pronounced. At least the direction of the activities was rapidly acquiring a consolidated or overall objective. This was particularly true of the approaches to the VHF problem, and to a certain extent, was true of the general COMINT support for the Theater Air Commanders.

General VHF Intercept Effort. Although the VHF program had become a long range planning project by early 1953, the immediate concern was the VHF intercept problem as related to furnishing a Close Support COMINT service.⁵² At that time the Russian high frequency GCI traffic

51. Historical Data Report, 6920th SG, Jan-Jul 1953. TSC 4072.

52. TWX, CG, USAFSS to CO, 6920th SG, Cite: OAD-20314, 4 Feb 1953. s.d. 372.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

319

being intercepted by the Group units continued to indicate increasing VHF activity. However, the actual VHF intercept had not been too successful. Further, the Group had determined that its original estimate of the equipment and technical assistance required had been too conservative. About this problem the Group stated that additional VHF intercept experience had shown the Group would require two aircraft for VHF relay intercept service.⁵³

In addition, the Group asked for receivers rather than the WW II BC-787 (then in use), i.e., VHF search type (AN/ARR-8A) with visual presentation of the entire band to locate unknown signals. The Group also requested a second type of VHF search receivers, i.e., super PRO/R-220/URR or equal high-gain, low-noise receivers for copying signals already located. As for the required antennas, the Group requested broad-band yagis designed to cover the 1100-156 MC band. (The antennas then in use were locally constructed and were not broad band). If these antennas could not be supplied in adequate numbers, the Group desired several VHF multiecouplers. Finally, the Group cited the need for VHF RDF equipment, type AN/MRD-5* or the AN/URD-2.

By early March the status of the general VHF effort was reported

53. TWX, 6920th SG to Hq, USAFSS, Cite: SG-345, 7 Feb 1953.
s.d. 373.

* Redesignated AN/TRD-10.

165

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

as follows in a wire to USAFSS from the Group:⁵⁴

P.L. 86-36
EO 3.3b(3)

. . . presently have one and one half VHF position at USA 54C (Cho Do). One position on 25x3 full cover 24 hours and one other position, same net, covering 0900-2100Z. VHF frequencies are estimated. Have necessary equipment but spare parts lacking. However, expect to have full operations shortly. Our VHF intercept project "Bluesky" established and placed in-to effect 12 February 53 with one C-47 type aircraft equipped with two variable control receivers, one crystal control receiver and one RT-11 recorder. . . . To date, no indication of anything valuable. However, equipment has been presenting considerable trouble. . . .

Ground VHF Intercept Effort: Aside from the initial Wakkanai and Cho Do activity (intercept), the VHF (ground) continued to be concentrated on development or modification of equipment. By early April 1953, an Engineering Services Section had been organized in the Group and had begun designing and testing new VHF antennas, viz., single-frequency and broad-band yagis, VHF vertically polarized half rhombic antennas and collinear arrays. This service unit was also testing a locally fabricated cascode-type Wallman low-noise preamplifiers in an attempt to improve the relatively poor noise ratio of the BC-787 receiver.

The experiments with the VHF half rhombics had produced encouraging results. Ground station with 8 watt transmitters had been received at 70 miles and aircraft had been received at 175 miles. Therefore, the first VHF half rhombic was installed at Wakkanai and a second similar antenna was manufactured by the 15th RSM for use in Cho Do.

54. TWX, 6920th SG to CG, USAFSS, Cite: SG 884, 10 Mar 1953.
s.d. 374.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

321

One of the outstanding features of this antenna was its adjustable tilt angle and height. It appeared to be adapted for reception of signals far beyond the horizon if it was declined to a five to ten degree angle, depending on the frequency and tilt angle.⁵⁵

By May 1953, the Engineering Services Section had fabricated a seven-wave length VHF half rhombic which had received 50-watt ground stations at distances up to 200 miles and 8-watt airborne transmitters at greater distances. This antenna was installed at Wakkanai. Also, two preamplifiers for the BC-787 receivers had been constructed. One was installed at Cho Do and one at Wakkanai,⁵⁶ the preamplifier used in conjunction with an improved double-stacked yagi on Cho Do produced very good results.⁵⁷ By late May the equipment fabrication program was well under way. Nevertheless, inadequate equipment for measuring and checking the designs or models was retarding the effort. The available Bridge Model 916A was efficient for measuring up to 70 MCS, however, a means of measuring impedance up to 150 MCS was required. Also, the Engineers needed equipment to measure field intensity in the VHF spectrum and a grid dip meter to adjust and determine resonant frequencies of antennas.⁵⁸

55. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 39, 28 Apr 1953. s.d. 375.

56. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semi-monthly Progress Report Number 41, 28 May 1953. s.d. 371.

57. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 42, 12 Jun 1953. s.d. 376.

58. TWX, 6920th SG to CG, USAFSS, Cite: GCM-0679, 22 May 1953. s.d. 377.

HQS USAFSS TSC No 19-09525

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~~TOP SECRET EIDER~~ Page 166 of 192 Pages

~~TOP SECRET EIDER~~

The status of the actual VHF intercept remained about the same throughout the early summer of 1953. USA 54C (Cho Do) continued to operate one-and-one-half positions. Therefore, the Group was directed by USAFSS to place both VHF positions on 24-hour coverage to improve the R/T coverage.⁵⁹ The Group replied that the full position provided 24-hour coverage on one frequency but the part-time position, because of insufficient personnel and equipment (recording), was operated only during periods of tactical activity. Although the traffic from the part-time position was not recorded, it was locally exploited and tactically employed by the TADC as part of the close support service.⁶⁰ Hence, in late July, USA 54C had two single receivers positions with recorders covering two 25x3 frequencies and search and one position covering 125 MCS full-time and one position covering 131 MCS and search part-time. After relocation of USA 54C, it was planned to increase the VHF effort considerably.⁶¹

P.L. 86-36
EO 3.3b(3)

Airborne VHF Effort. By early February 1953, one VHF intercept effort--Project "Bluesky"--was established aboard a TADC communications relay aircraft. This capability consisted of two AN/ARR-5 search receivers, one AN/ANQ-1 recorder, one AN/ARC-33 UHF radio set and one VHF radio set. The equipment was installed so that complete

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59. TWX, Comdr, USAFSS to Comdr, 6920th SG, Cite: OI-21954, 6 Jul 1953. s.d. 378.
60. TWX, 6920th SG to Comdr, USAFSS, Cite: GCO-3-1683, 10 Jul 1953. s.d. 379.
61. TWX, Comdr 6920th SG to Comdr, USAFSS, Cite: GCO-3-2213, 31 Jul 1953. s.d. 380.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

323

flexibility of operations was possible. One operator could receive, record and retransmit on VHF or UHF or both. The output of both receivers could be fed into the transmitter simultaneously so that both sides of a two-way conversation could be relayed over a single channel.⁶²

The object of retransmitting intercepted signals was to relay this type of traffic back to the Air COMINT unit on Cho Do in time to be tactically exploited. These retransmissions were believed to be secure because: (a) UHF was difficult for the enemy to intercept; (b) only Russian signals were retransmitted, i.e., no operator comments or announcements; (c) the harmonics of Russian VHF frequencies were to be used as much as possible.

The project's operations (flights) began 12 February. By 10 March 1953, 26 missions had been flown behind the central front. Although the operators had heard the Russian VHF-GCI net numerous times, the quality of the AN/ANQ-1 wire recordings was very poor. Moreover, the communications equipment used for relay between the TADC and the UN aircraft interfered with the intercept effort* to a certain extent.⁶³

62. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 33, 25 Jan 1953. s.d. 381.

63. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 36, 12 Mar 1953. s.d. 382.

* Initially, all "Bluesky" missions served a dual purpose -- TADC communications relay and USAFSS intercept. The former purpose required the aircraft to operate in an area unsuited for VHF intercept and impossible for UHF retransmissions. Later, exclusive VHF intercept missions were flown below the 38th parallel on the West Coast, but the aircraft crashed before any positive results were obtained. (Information furnished by Major George I. Mason, OOD, Hq, USAFSS. Major Mason was the AFSSO at 5th AF during this period).

~~TOP SECRET EIDER~~

167

Page 3

~~TOP SECRET EIDER~~

324

Nevertheless, it was believed that after these communications difficulties were eliminated the project would produce valuable intercept.⁶⁴

Meanwhile, conversion to VHF by the Soviets on more air/ground and air/air communications continued to noticeably reduce the Group Intelligence Production capability in several respects. In connection with the conversion to VHF transmissions, USAFSS personnel aboard a Strategic Reconnaissance bomber had intercepted 9th Air Army VHF traffic on 11 March 1953 which involved units that had not been intercepted on HF since 19 February 1953. Further, there was no prospect of successful ground VHF intercept except in Korea and at Wakkanai. However, the VHF effort at Wakkanai had not intercepted any Russian VHF transmissions. As a result of these factors, FEAF approved a request for a minimum of five RB-29 missions each month for the primary purpose of obtaining VHF intercept. This effort was in addition to project "Bluesky" in Korea.⁶⁵

Thus, by May 1953, the VHF intercept problem had become recognized to the extent that the 6920th Group recommended the continuation and expansion of the airborne intercept program. The former recommendation was justified by the Group, as follows:⁶⁶

64. TWX, 6920th SG to CG, USAFSS, Cite: SG 884, 10 Mar 1953. s.d. 374.

65. Ltr., Hq, 6920th SG to CG, USAFSS, Subj.: Semimonthly Progress Report Number 37, 27 Mar 1953. s.d. 383.

66. TWX, 6920th SG to CG, USAFSS, Cite: GCO 0405, 9 May 1953. s.d. 384.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

325

1. Russian transition to use of VHF radio is seriously hampering TACOMINT support to UN operations in Korea and COMINT production in all other Far East areas. All Russian fighter units in combat have converted to VHF for primary use, the ground/air portion being intercepted only sporadically. Units of the 9th and 10th VAS, 5th Fleet and 3rd Long Range have been heard on VHF.

2. Recent VHF search missions flown for us by the 91st Strategic Reconnaissance Squadron indicate airborne intercept is the only practical means of VHF intercept in certain areas.

The Group recommended the following in an attempt to expand the
67
future operation of the program:

3. The function of operating airborne platforms for VHF intercept be made the responsibility of the Strategic Air Command (the same units that perform airborne ELINT intercept perform VHF intercept) with arrangements for operational control by the Security Service Groups.

4. The aircraft used for airborne intercept should also have a capability for simultaneous relay of intercept to a ground station for tactical exploitation.

At that point, the airborne intercept program in the Far East was actually operating somewhat similar to the above recommendations in a limited manner. FEAF was providing:
68

1. One C-47 aircraft for VHF tests in Korea "Bluesky"). These preliminary tests had proven unsatisfactory because of the limitations placed on the area of operations.*

2. Approximately five VHF search missions a month aboard B-50 aircraft of the 91st Strategic Reconnaissance Squadron. The results of these missions had been: Seven missions flown in December 1952 - January 1953 - non-productive; five missions flown in February-March-April 1953; two in the VLADIVOSTOK area.

67. Ibid.

68. Ibid.

* Later, it was determined that obsolete VHF receivers and wire recorders were the primary reasons for the unsatisfactory operation after the aircraft began flying exclusive VHF intercept missions.

~~TOP SECRET EIDER~~

168

~~TOP SECRET EIDER~~

productive; two in the Wakkanai area one of which was productive; one in the Korean area, productive.

3. Arranging to place three B-45's under Group control which would provide a capability of one 5-hour mission each day with two to three hours over the target at 45,000 feet.

This capability was being furnished for technical continuity and cover number monitoring because FEAF was very concerned over the intelligence already lost and the additional loss if the Russians converted to VHF. FEAF had also indicated its desire to have a USAF Strategic Reconnaissance Squadron for the primary purpose of supporting airborne intercept in the Far East. Subsequently, USAFSS initiated action designed to place the USAFSS airborne intercept platform (RB-29) on permanent duty in the Far East. Further, all positions aboard the USAFSS aircraft were to be VHF so that the Group's VHF intercept capability would be stronger.⁶⁹ This aircraft would be under the control of the 6920th Group as far as theater directives would permit. However, the platform would not have a VHF-RDF capability,⁷⁰ which had been requested by the Group. The Group also requested that suitable transmission equipment be installed aboard the aircraft to permit tactical exploitation of the VHF intercept.⁷¹

Low and VLF Effort. Headquarters USAFSS also instructed the 6920th Security Group to investigate the problem because of its possible influence on future equipment requirements.⁷² The Group established a

69. TWX, CG, USAFSS to CO, 6920th SG, Cite OED 21598, 2 Jun 1953. s.d. 385.

70. TWX, CG, USAFSS to Cmdr, 6920th SG, Cite: ODC-96704, 28 Jul 53. s.d. 386.

71. TWX, 6920th SG to Cmdr, USAFSS, Cite: GCO 1987, 23 Jul 53. s.d. 387.

72. TWX, CG, USAFSS to CO, 6920th SG, Cite: PDC-21832, 24 Jun 53. s.d. 388.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

327

VLF-LF project during late June 1953. At that time, the Group installed a search position at USA 54A. The Group already had full 24-hour coverage of the frequencies at USA 38 and USA 54.⁷³

ECM and Ferret Effort. From late December 1952 until May 1953, the COMINT participation in the ECM and Ferret activity was generally in accordance with the classical concept of COMINT collection and utilization. This operational status resulted from an LSIB decision on COMINT utilization, which prohibited the use of COMINT in the protection of Ferret aircraft.* However, USCIB and LSIB approved a USAF request in April 1953 for use of COMINT in the protection of photo reconnaissance flights in Europe.⁷⁴ Also, by May 1953, USAF had established stipulations or conditions which would have to be fulfilled in order for a "Bitter Sweet" type operation to be approved.

In late May, FEAF referred the USAF qualifications, placed on this type of an Air COMINT service, to the Group for review and comments. The 6920th Security Group generally concurred in the USAF restriction on the type of COMINT which could be used in the warning of aircraft because the primary source of warning material was plain language GCI traffic as visualized by USAF. Furthermore, USAF stipulated that the basis for instructions to warn or abort missions would be

73. TWX, 6920th SG to Comdr, USAFSS, Cite GCO-5-1439, 27 Jun 53. s.d. 389.

74. Ltr., Hq USAFSS to CO 6910th SG, Subj.: Communications Intelligence, 21 Jul 1953. s.d. 390.

* See Project Bitter Sweet, Chapter V, this Study.

~~TOP SECRET EIDER~~ 169

~~TOP SECRET EIDER~~

328

logically attributable to sources other than COMINT, such as radar and/or reconnaissance, and that COMINT sources would not be disclosed by association or otherwise. To this stipulation the Group pointed out that U.S. early warning and GCI radars in Northern Japan provided a plausible source of warning for aircraft within range. Beyond this range the warning information could be attributed to airborne radar or visual observation from U.S. aircraft which was passed to ground stations.

In respect to the communications employed in the warning effort, USAF stipulated that:⁷⁵ "Communications used to warn or abort missions will be timed so that abort will not appear to be direct result of info obtainable only thru COMINT."

To this the Group pointed out that since any information used would be attributable to other sources, the limitation was superfluous. However, the Group also pointed out that the speed of jet fighters would not permit any delay in the sequence of passing the warning and consequent abort of the aircraft.*

75. TWX, 6920th SG to Comdr, USAFSS, Cite: GCO-1618, 6 Jul 1953.
s.d. 391.

* The actual warning signal, based either on COMINT or friendly radar, would be passed exactly as under the original Bitter Sweet plan. However, dummy signals were to be exchanged between a ground station and the aircraft at irregular intervals. Too, the exchange was to be initiated by the aircraft upon detection of foreign EW radar signals or upon entering an area in which the U.S. reconnaissance aircraft were normally tracked.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

329

USAF stipulated that the warning signal would not be unique or identifiable to foreign analysis as a signal for warning purposes and would be used one time only. The Group comment on this qualification was that the warning signal would be identical in external appearance and handling to the other signals, real or dummy, and that both types of signals would be used only once. Finally, USAF specified that any cover used would not draw attention to the fact that unusual action was occurring. Again, the Group pointed out that this condition would be met by maintaining a routine exchange of signals between the aircraft and the ground station.

Meanwhile, by July 1953, the Navy had also advanced a plan for protection of Ferret aircraft which was somewhat similar to the "Bitter Sweet" operation. This Navy (ONI) plan provided for a warning signal and no answer from the aircraft. It was viewed by the Group as being inherently more secure and easier to cover, since the only communications involved were concealed in the traffic of a normally busy RDF net* having no apparent relationship to the flight or specific aircraft. The Navy plan did not provide for acknowledgement of the

* Under the Navy plan, reconnaissance aircraft would monitor a designated U.S. COMINT RDF net, listening for a prearranged signal (the warning). The RDF net would conduct its normal operations. The warning signal would be sent as if it were a part of the normal operations, would not be addressed to an aircraft and would not request an answer. The Navy advocated the "Fox" type of broadcast where addressees copy only what is for them and do not contact the transmitting station. The USAF preferred the two-way contact.

~~TOP SECRET EIDER~~

170

~~TOP SECRET EIDER~~

330

warning and reporting of evasive intentions. Neither did the plan provide for the alerting of the aircraft to the fact that it was being tracked. However, the early experience gained in "Bitter Sweet" operations had indicated that no useful purpose could be served in warning an aircraft that it was being tracked, except in rare instances when the aircraft would be required to take specific action upon being detected by the enemy.⁷⁶

As previously stated, the COMINT participation in the Ferret activities was a routine phase of the COMINT effort during this period. As such, it was subject to or affected by the standardization trends of the period. By January 1953, USAFSS had attempted to formalize the intercept practices for monitoring the Ferret activities as employed by the Far East group. Also, the action was designed to expand the working agreements in effect. First, USAFSS drafted three intercept plans for coverage of the activity. The plans were designed, primarily, for use by the Group as guides. Generally, the plans were for specific area activity and their implementation procedures were as follows:⁷⁷

76. TWX, 6920th SG to Comdr, USAFSS, Cite: GCO-1618, 6 Jul 1953. s.d. 391.

77. Ltr., Hq, USAFSS to CO, 6920th SG, Subj: Intercept Plans for Ferret Activity, 20 Jan 1953. s.d. 392.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

331

"When a Ferret aircraft was scheduled for a mission, FEAF would notify the Group, which in turn would implement the particular plan for the specific area and notify NSA and AFSS."

In addition to the predetermined regular coverage of the Ferret missions, the Group was instructed to employ one Morse search position to cover all signals below 500 KCS, including beacon transmissions. Also, the Group was authorized to assign one voice (VHF) position and RDF and RFP coverage of all identifiable signals connected with the Ferret Intercept coverage plan.

As for reporting the reactions, USAFSS instructed the Group to include the routine traffic in the PVO TECSUM. However, when a reaction (enemy) was considered significant, the Group was instructed to forward the raw traffic by electrical means to NSA and USAFSS.

By March 1953, the Group had arrived at certain operational conclusions relative to the three plans advanced by USAFSS and had submitted the following comments:⁷⁸

It is believed that rigid control, even by Group, of the intercept coverage for each flight is impractical. This belief results from the fact that in most instances preflight notices are received too late to effect intercept control of outstations centrally from Group; and the outstations are much better able to follow the course of the Ferret.

78. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Intercept Plan for Ferret Activity, 6 Mar 1953. s.d. 393.

~~TOP SECRET EIDER~~

171

~~TOP SECRET EIDER~~

For the reasons above, it is suggested that the 'USAFSS World-Wide Ferret Plan' provide only for the number of positions by area rather than by specific case,* and that the requirements for a pre-mission notification of which plan is in effect be discontinued. In place of this notification, a summary of what coverage was implemented can be added to post-mission reports. It is, however, difficult for us to understand the requirement for this in either case, since you already receive the same information in DCR's, PVO TECSUM's and raw traffic.

However, USAFSS disagreed with the Group theory of intercept coverage and again advanced the principle of standardizing the intercept plans for covering reactions to Ferret activity. Also, USAFSS informed the Group that intercept of Ferret activity continued to be of paramount interest to Zone of Interior agencies and that NSA was closely following all Ferret reactions in order to satisfy consumer requests for such information. Hence, to satisfy the requirement, NSA would need all the information related to Ferret activities on a timely basis.⁷⁹ Therefore, USAFSS instructed the Group to provide a feasible method for forwarding Ferret traffic to the Zone of Interior as expeditiously as possible.⁸⁰

Theater Close COMINT Support Plans. Aside from furnishing close COMINT support to Theater Air units during this period, the Group directed a considerable amount of effort toward establishment of additional facilities and services. With respect to the former factor,

79. 1st Ind (Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Intercept Plans for Ferret Activity, 6 Mar 1953) Hq USAFSS to CO, 6920th SG, 1 Apr 1953. s.d. 394.

80. 3rd Ind (Ibid), Hq, USAFSS to CO, 6920th SG, 10 June 1953. s.d. 395.

* The plan drawn by USAFSS in January 1953 had stipulated certain POROCO coverage in priority order.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

333

the Group selected and tested a site on Formosa for the 84th RSM.⁸¹ Technically, the site was deemed excellent. However, the negotiations for the site were Washington-level responsibilities. Therefore, the Group limited its activities to essential reports and to initiating Support Requirements correspondence for FEAF.⁸²

Also, the Group revised its close support COMINT plan for FEAF units which might be committed to the defense of Formosa and/or Indo-China. Originally, the 15th RSM had been given this close support COMINT responsibility and had been directed to maintain a small mobile intercept team to furnish such Air Force (FEAF) COMINT support. However, in April 1953, this responsibility was transferred to the 29th RSM, which was directed to organize and equip a capability of three C/W and one R/T and one HF/RDF position. The analysis portion of the Team would be furnished by the Group upon deployment of the Team.⁸³

Meanwhile, some definite terms were established during this period which concerned the plans for COMINT support of JADF activities. The JADF operations plan, approved by FEAF and forwarded to USAFSS for review of the portion relative to USAFSS participation and the utilization of COMINT, was viewed by USAFSS as operationally satisfactory and

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81. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 35, 27 Feb 1953. s.d. 345.
82. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 37, 27 Mar 1953. s.d. 383.
83. Ltr., Hq, 6920th SG to CG, USAFSS, Subj: Semimonthly Progress Report Number 40, 12 May 1953. s.d. 396.

~~TOP SECRET EIDER~~

172

334

~~TOP SECRET EIDER~~

necessary. However, USAFSS questioned the legality of the plan's implementation, under the then current regulation, without specific approval by USCIB and authority from the Director of Intelligence, USAF. USAFSS referred the matter to AFOIN. As a result, the Group was instructed to "endeavor to have distribution of the JADF Plan restricted to SSO channels."⁸⁴ In turn, USAFSS recommended to the Director of Intelligence, USAF that the Plan be authorized by the proper COMINT authority.

Subsequently, the Group requested JADF to withdraw copies of the Plan, pending USAF approval. Also, the Group pointed out to USAFSS that to discontinue the implementation of the necessary communication circuits would be dangerous. In turn, the Group proposed to JADF that these circuits be retained to permit the implementation of the plan in an emergency, an act which was already authorized in the existing regulation. Actually, the plan had been approved by FEAF for implementation only under the emergency powers granted Theater Commanders in the "Regulation for Security and Dissemination of Communications Intelligence." This had been the authority used by FEAF to implement the "Y" service in the Korean War.⁸⁵

Theater Close Support COMINT Furnished. Throughout the first half of 1953 the effectiveness and/or completeness of the Group Close

84. TWX, CG, USAFSS to CO, 6920th SG, Cite OID-93857, 15 May 1953.
s.d. 397.

85. TWX, 6920th SG to CG, USAFSS, Cite: GCO-0632, 19 May 1953.
s.d. 398.

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335

COMINT support for theater customers was generally as follows: The Communist Voice and Morse communications in North Korea/Manchuria were well-covered and tactically exploited in direct support of the 5th Air Force. Reports relative to routine activity were disseminated daily and significant changes in Communist tactics and/or deployment were reported in spot messages. Also, information on early warning radar locations, capabilities and associated air warning communications were produced on a routine basis in conjunction with the ECM coverage effort. In respect to Communist sensitivity to reconnaissance or patrol aircraft, voice nets were also monitored and reactions to U.S. flights were given special dissemination. New radar early warning and GCI stations were normally detected and located. Radar calibration exercises and, specifically, enemy radar tracking of Communist aircraft was sometimes tactically exploited.

P.L. 86-36
EO 3.3b(2)

With respect to Strategic Support, Communist fighter, bomber and transport activity in the SAKHALIN-KURILES area, Southern Maritime District, Manchuria-China area and rear support areas were given good

25x3

was not true in the case of Russian traffic, because of the greater

~~TOP SECRET EIDER~~

173

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336

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communications security employed by the Russians. Normally, Russian AOB data had to be obtained through the more difficult and less reliable traffic analysis.⁸⁶

86. Ltr., Hq, 6920th SG to CG, JADF, Subj: Intelligence Requirements, 15 May 1953. s.d. 399.

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~~TOP SECRET EIDER~~

337

CHAPTER VII

The Aftermath

Undoubtedly, many significant characteristics or traits, which differed from established military concepts, were crystallized after the end of hostilities in Korea. A very significant one, if measured by attitudes and practices following the end of other armed conflicts in which the United States participated, was the state of readiness philosophy or maintenance of a combat capability. This characteristic was especially true of the communications intelligence component of the Armed Forces.

EFFECT OF ARMISTICE ON USAFSS
COMINT OPERATIONS

By early July 1953 a great deal of consideration was being given to maintaining a COMINT Close Support capability in Korea after the truce. This consideration included future targets and techniques of operations as well as redeployment and augmentation of facilities.

Immediate Planning for The Truce. On 24 July 1953, Headquarters USAFSS requested the 6920th Group to submit a summary of the effects the armistice would have on Close Support COMINT Operations in Korea.¹

1. TWX, Comdr, USAFSS to Comdr, 6920th SG, Cite: ODC-96560, 24 July 1953. s.d. 400.

~~TOP SECRET EIDER~~

174

~~TOP SECRET EIDER~~

338

In answer the Group stated that the operational effect, as far as
could be determined, would be:²

1. USA 54C would move back from Cho Do to PAENGYONG-DO (K-53).
2. Tactical utilization of COMINT would be discontinued. However, the capability would be maintained in readiness.
3. North Korean Air Units and Communications would increase and at the same time USAFSS would possibly lose the services of Major Cho.
4. Emphasis on COMINT information would increase as other prolific sources were lost.
5. Requirements for airborne VHF intercept would increase. However, the requirements for automatic relay of the intercept for tactical exploitation would be discontinued.

P.L. 86-36
EO 3.3b(3)

Concurrently, NSA recommended certain changes in the intercept effort in the Far East in order to prevent certain norms from being disturbed. However, with the exception of USA 54C, (later redesignated Flight "B") the changes were minor.³ At that time it was decided that personnel and facilities not fully utilized at 54C on GCI targets would be used as follows:⁴

1. To intercept voice traffic on 25x3
2. To augment 25x3 coverage of the North Korea/Manchuria area to determine the extent of change or expansion of the Communist Air defense effort.

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2. TWX, 6920th SG to Comdr, USAFSS, Cite: GCO-2086, 27 Jul 1953. s.d. 401.
 3. TWX, XI DIRNSA to Comdr, USAFSS, DTG: 271852Z July 1953.
 4. TWX, Comdr, USAFSS to Comdr, 6920th SG, Cite: OID-5-22197, 29 Jul 1953. s.d. 402.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

339

3. To closely watch KCAB nets inasmuch as probable moves of NKAF units to North Korea would ~~eliminate the past~~ ability to follow NKAF progress on [25x3]

P.L. 86-36
EO 3.3b(3)

These recommendations were approved by USAFSS and forwarded to the Group on 29 July. However, early in August, the Group replied to the proposal as follows:⁵

Augmentation of [25x3] coverage of North Korea/Manchuria or the expand effort on KCAB nets impossible at this time due to fact that entire USA 54C effort is on voice nets. Any personnel made surplus by limited GCI activity would not be qualified to cover morse nets.

Therefore, USA 54C continued its voice interception and coverage of the North Korean/Manchurian Morse nets was performed at USA 54A (Osan Ni, Korea) and at USA 54 (Ashiya, Japan). This decision and subsequent operation was based on the following facts: (a) The floor space limitations in the intercept quonset huts at 54C precluded the addition of morse intercept positions at that site. (b) The morse nets were HF and did not necessarily require close-in interception as in the case of VHF, and (c) communications from 54C were unreliable at their best.* Generally, the USAFSS COMINT collection program was intensified after the armistice, because of the reduction or outright loss of other source of information.

Post Armistice COMINT Requirements-Far East. The primary COMINT Close Support problem posed by the truce was the establishment and maintenance of a COMINT Close Support capability to

5. TWX, Comdr, USAFSS to DIRNSA, Cite: OID-5-22352, 13 Aug 1953. s.d. 403.

* Information furnished by Captain William C. Schwitzgebel.

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175

Page..... of 192 Pages

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provide timely intelligence response to the 5th Air Force and FEAF requirements concerning Communist units operating in North Korea and Manchuria. Though the truce ended combat air operations, the outstanding requirement continued to be the provision of immediate information for aircraft direction and control purposes.* Further, the primary source of this information would continue to be target transmissions in the HF and VHF spectrums.

Meanwhile, the experience gained in support of 5th Air Force operations began influencing the approaches to the problem. In early August 1953, the Commander, 5th Air Force, acknowledged the value of COMINT in peacetime and recognized the importance of a collocated COMINT - TADC activity concerning the peacetime requirement and wrote:⁶

Although actual combat has ceased, the threat posed by enemy air power remains real and immediate. With the denial to Fifth Air Force of such conventional forms of intelligence as photographic reconnaissance, your organization /the 6920th Security Group/ will become one of our major sources of intelligence on the enemy's movements and activities. I urge you to expend every effort in improving your techniques and capabilities and maintaining a state of constant war-time vigilance.

Concerning the effectiveness of the techniques developed in supplying support to the 5th Air Force, the General stated:⁷

6. Ltr., Hq 5th AF to Comdr, 6920th SG, Subj: Letter of Appreciation, 6 Aug 1953. s.d. 404.

7. Ibid. s.d. 404.

* COMINT information was not passed to the TADC on a large scale, however.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

341

. . . By your operations in conjunction with the Tactical Air Direction Center, you have proved conclusively the value of tactical communications intelligence and have aided in the defense of UN lines and property.

These views were echoed and stressed by the Commander, FEAF, 12 days later.

In acknowledging these tributes paid the Air Force COMINT units by Far East Air Commander, the Commander, USAFSS assured the Commander, 6920th Security Group that:⁸

The experience gained and the lessons learned in Korea are now being applied to the development of plans and programs to support all types of air operations, such as ADC, SAC and other tactical Air Forces. You may take pride in the fact that the techniques which have been pioneered by the 6920th Security Group in the Far East are now our most valuable guides for development of the AFSS capability to provide COMINT support to Air Commanders.

Peacetime Close Support COMINT Operations. Concurrently, techniques developed on Cho-Do were being applied to the solution of the 5th Air Force support problem. In essence, the solution was developed as follows: The intercept potential on the island of PAENGYONG-DO (K-53) was compared, from an intelligence producing standpoint, with the effort at Kimpo (K-14). This comparison revealed that the Kimpo effort did not meet tactical intelligence requirements. However, the PAENGYONG-DO capability indicated a potential somewhat similar to the successful Cho-Do effort. Hence, the island site

8. 3rd Ind (Ibid.), Hq, USAFSS to Comdr, 6920th SG, 23 Sept 1953. s.d. 405.

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~~TOP SECRET EIDER~~

176

342

~~TOP SECRET EIDER~~

was selected as an operational location for a Close Support COMINT unit because of its favorable technical characteristics. Also, the choice was designed to produce information at its point of greatest usability because the 5th Air Force planned to assign the major GCI control responsibility to the TADC on PAENGNYONG-DO. Collocation of the Close Support COMINT capability with the TADC activity responsible for GCI control was deemed of paramount importance if the prime 5th Air Force requirements were to be fulfilled.*

Therefore, Flight "B" of the 15th RSM was deployed to K-53. This original capability consisted of nine voice positions, including the necessary receivers and recorders for intercept and playback. Five (5) long wire antennas were constructed for HF intercept and two 80-foot masts were erected for VHF intercept. Also, two doublet antennas were constructed and two AN/GRC-26's were installed for communication with the 5th Air Force and other COMINT processing centers. In addition, a ten-pair cable was laid from Flight "B" operations to the TADC. Concurrently, USAFSS suggested the deployment of an RSM (Light) to Korea. The two major flights--12 voice and one C/W position each--could be deployed to K-53 and OSAN-NI (K-55).⁹

9. R&R, ODC to CCG, Subj: Weekly Progress Report, 17-22 Aug 1953, 24 Aug 1953. s.d. 406.

* See Outstanding Conclusions Drawn, this Chapter.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

343

By November 1953, the voice capability at K-53 was providing reasonably complete information on enemy air units operating in North Korea and Manchuria.* Since this effort had proved to be the most prolific and dependable source of information concerning the target units, it was believed that establishment of additional facilities on K-53 would enhance current and future operations, resulting in a more complete capability. More voice frequencies could be covered and the effectiveness of collocation with the TADC could be maintained.¹⁰

This effort at K-53 was augmented and its operational techniques were formalized in consonance with the developed Close Support COMINT concept of operational support. First, the 15th RSM adopted an Operational Plan for Flight "B", which defined those COMINT items that could be passed to authorized personnel in the TADC, i.e., the Senior Duty Controller, who was indoctrinated for that type of COMINT, and the plotter in the TADC, who was not indoctrinated. The plotter was only authorized to receive enemy aircraft positions, direction of flights, altitude of flight, number of aircraft and information

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10. Memo for Record, Subj: Flight "B" 15th Radio Squadron, Mobile COMINT Support of 5th Air Force, 30 Nov 1953. s.d. 407.

* This capability consisted of seven HF voice and two VHF voice positions. The HF intercept was reflecting a vast increase in quality and quantity of 12 jet fighter regiments activities since the HF mission had been moved from K-55 to K-53. However, these reflections were believed to be the result of more effective intercept rather than a change in the regiments operation.

~~TOP SECRET EIDER~~

177

~~TOP SECRET EIDER~~

relative to flights in orbit. The Senior Duty Controller was authorized to receive information about the known intentions of the enemy flights as well as their operational or combat readiness. Neither the Controller nor the plotter were authorized to receive technical or "sophisticated" COMINT information. Furthermore, Close Support COMINT information was not passed to the Controller when it was obvious that such information could not aid the Controller on duty.¹¹

Actually, Flight "B" was located near the 608th AC&W Squadron's forward TADC. This proximity of location was necessary to provide secure lines of communications between Flight "B" operations and the TADC. Eleven intercept positions in Flight "B" were concentrated on enemy radio telephone transmissions. Five of these positions were utilized to provide tactical information to the TADC. Enemy aircraft control (GCI) Stations and enemy early warning nets (radar and visual spotter activity) were intercepted and recorded. Audio lines were installed from four intercept receivers to Flight "B" positions located in the TADC operations. This provided simultaneous intercept by USAFSS voice intercept operators in Flight "B" operations and TADC operations. Hence, maximum speed was attained in passing the information to authorized AC&W personnel in the TADC.

11. Hq 15th RSM, Operations Procedure No. 55-11, 12 Feb 1954.
s.d. 408.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

345

Normally, five Flight "B" operators were required in the TADC during 5th Air Force patrols or other significant air activity, and one voice operator remained on duty in the TADC during routine air activity. However, all five persons could commence operations in the TADC within five minutes when the necessity arose. During periods when USAF aircraft were above the 38th parallel, four operators monitored, remotely, the actual enemy transmissions, and one operator served as the supervisor. This individual passed information to the TADC plotting board and Controller, contacted Flight "B" operations for additional information when required and coordinated information with the ROK intercept position. The four monitoring positions located in the TADC were manned by USAFSS voice intercept operators, two on Russian and two on Chinese targets. The ROK voice position, located adjacent to the main Flight "B" intercept site, was manned by South Korean civilian personnel.

Moreover, a room was provided within the TADC which was restricted to all personnel except Flight "B" personnel during periods of operations. A plexiglass window was installed to permit Flight "B" personnel (operators) to view the TADC plotting board. Also, direct phone lines were installed from the Flight "B" operators in the room to the TADC plotters and a direct line was installed from the Flight "B" supervisor to the Senior Controller on duty in the TADC. The TADC plotters were provided with the information which could be passed to them in "radar talk", such as position, direction, altitude, etc. The Senior Controller

178

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

347

the necessary VHF intercept equipment for the ground program and obtain and equip the necessary airborne platforms.¹⁵

The ground intercept at 54C of enemy VHF transmissions was effective on enemy aircraft signals only. The enemy ground stations were just beyond (approximately 400 nautical miles) the range of reliable interception. Yet, since the enemy's GCI and EW ground stations contained the greatest percentage of immediately useful information, it was essential that a capability for interception of these transmissions be developed. After the armistice, 5th Air Force provided two C-47 aircraft for VHF intercept. One VHF intercept position was added in each aircraft* in order to accomplish adequate coverage on enemy GCI stations. However, aircraft maintenance, shortage of intercept and auxiliary equipment and the problem of transcribing and relaying the intercepted traffic to the necessary agencies prevented the program from accomplishing coverage continuity on the enemy VHF ground stations.**

Meantime, a considerable amount of effort was directed to development of antennas with sufficient gain to intercept the enemy ground

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15. Ltr., 15th RSM to Comdr, 6920th SG, Subj: Ground VHF R/T Intercept (AFS-U26), 14 June 1954. s.d. 412.

* These aircraft were previously employed as "Hob Ncb" or "Bluesky" aircraft during the latter part of the Korean conflict and already had one VHF position installed.

** Information furnished by Captain William C. Schwitzgebel.

179

~~TOP SECRET EIDER~~

348

~~TOP SECRET EIDER~~

station during a large percentage of the time. This part of the VHF intercept program was designed to eliminate the necessity for continuing the "Bluesky" project. Nevertheless, this objective had not been realized by mid 1954.

Post Armistice Weather Effort: During late July 1953, the problem of a unified Theater Special Weather Intelligence effort was again attacked. At that time, DIRNSA informed USAFSS that FWPU (Pac) would be placed under the operational control of the 6920th Group and requested recommendations relative to the integration of the Weather effort in the Far East.¹⁶ Therefore, USAFSS recommended to NSA that:¹⁷

The FWPU (Pac) be integrated with the 6920th Security Group operationally as well as organizationally.*

The DIRNSA permit USAFSS to combine the Air Force authorization FWPU (Pac) with the 6920th Group, which would permit deactivation of the 6905th Security Flight.

The mission for production of Special Weather Intelligence in the Far East be placed on the 6920th Security Group.

By late October, NSA had acknowledged the receipt of the counter-proposal advanced by USAFSS,¹⁸ and a conference was called to study the revision of the Group Operations orders reflecting the new responsibility.

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16. Ltr., NSA to Comdr, USAFSS, Subj: Responsibility for the Production of Special Weather Intelligence in the Pacific Area, Serial 000396-S, 20 Jul 1953. s.d. 413.
 17. Ltr., Hq USAFSS to DIRNSA, Subj: Production of Special Weather Intelligence in the Pacific Area, 25 Aug 1953. s.d. 414.
 18. Ltr., NSA to Comdr, USAFSS, Subj: Production of Special Weather Intelligence (SWI) in the Far East, Serial 000556-S, 23 Oct 1953. s.d.415.

* Originally, NSA had proposed to move FU/PAC to the 6920th Group, make the Commander, 6920th Group responsible mission-wise, for the unit, but keep FU/PAC in existence as a separate unit, organizationally.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

349

The NSA representatives proposed that:¹⁹

The mission of the 6920th Group be modified as follows:

1. To operate and control all facilities of FWPU (PAC) to provide Special Weather Intelligence in general support of CINCFE and CINCPAC.
2. To operate and control all facilities of FWPU (PAC) to provide Special Weather Intelligence in general support of CINCFE and CINCPAC.
3. To provide, operate and control designated intercept facilities to provide Close Special Weather Intelligence support to operational air commands in the Far East.

The Operational Control be modified as follows:

1. The Commander, 6920th Security Group will exercise routine operational control of FWPU (PAC) to fulfill the processing and reporting tasks performed in its mission as defined above.
2. The non-routine operational instructions concerning FWPU (PAC) would be issued by DIRNSA directly to the Commander, 6920th Security Group.

As for the tasks and responsibilities, the NSA personnel proposed to modify them as follows:

1. Operational Reports: To submit periodic operational reports on Special Weather Intelligence matters in accordance with appropriate NSA circulars (50 series).*
2. Distribution: Special Weather Intelligence would be disseminated to designated Air Force and Navy recipients in accordance with formats and procedures prescribed by DIR, NSA.

19. R&R, ODC to CCG, Subj: Weekly Progress Report, 26-31 Oct 53, 4 Nov 1953. s.d. 416.

* NSA Circulars in the 50 Series comprise the NSA Field Operations Manual and contain pertinent standing operating procedures established by the Director, NSA to exercise operational and technical control of the COMINT facilities of the United States.

180

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

3. Facilities: When existing facilities under control of the 6920th Group became inadequate to meet short-term local requirements for air or weather intelligence of another military source in the Far East, the Chief, NSAFE would make available such NSA controlled facilities as were necessary to meet the cross-service requirements.

The above proposals were based on the concept that NSA would directly control all intercept required for global weather coverage; whereas, the Commander, 6920th Security Group would control intercept for other weather requirements placed on the Group by Air Commanders. Further, the identity of FWPU (PAC) would be maintained and the officer in immediate charge of the unit would be appointed by NSA. Subsequently, NSA published changes to Operations Order No. 401--the Weather mission for the 6920th Group. This change reflected the above NSA concept of Weather Operations.²⁰ Although the 6920th Group assumed its delegated control of the Far East Weather operations* upon completion of its move to Shiroy, Japan, in May 1954, the delegation of similar control of FWPU (LANT) to the 6950th Group was postponed, pending the outcome of the combined Far East Weather Operations.

20. NSA Operations Order No. 401, 3 Dec 1953.

* This type of split control was viewed as nebulous since the tactical weather required by air commanders had been and could again be the only weather available to fulfill global requirements. Hence, it was conceivable that NSA would or could assume control of the entire weather effort if conditions were changed.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

351

In relation to the Special Weather information service to Air Commanders, the lessons learned in the Korean conflict* exerted influence on another phase of the Weather program. Late in July 1953, Air Weather Service initiated a request to NSA through AFOIN-1A3 which was designed to charge USAFSS with the total clear weather intercept responsibility.²¹ AFOIN concurred with the proposal and forwarded a draft letter for NSA to USAFSS for coordination.²² Hence, USAFSS recommended to AFOIN on 11 September 1953 that the concerned parties develop a Special Weather Intelligence Emergency Plan instead, to assure maximum support for AWS. However, the plan was not developed by the end of 1953.**

Post Armistice Field Production Effort. Generally, the field processing or production effort continued along established lines after the truce became effective. That is, the field units continued to prepare various technical (raw data) reports for submission to Zone of Interior processing centers and continued to prepare the

21. R&R, ODC to CCG, Subj: Weekly Progress Report, 27 July - 1 Aug 53, 2 Aug 1953. s.d. 417.

22. Ltr., AFOIN-1A3 to Comdr, USAFSS, Subj: (Conf) Weather Intelligence Collection Planning, 23 Jul 1953. s.d. 418.

* See Chisom Weather Effort, Chapter IV, this Study.

** Information furnished by Captain Richard Machelski, Staff Weather Officer, DCS/Operations, Headquarters, USAFSS.

~~TOP SECRET EIDER~~

181

~~TOP SECRET EIDER~~

352

established intelligence reports for all consumers. However, the field production effort, both collection and processing, was later modified as a result of concepts and procedures developed and/or implemented immediately prior to the armistice. The concepts and procedures in question concerned the TECSUM program, the central theater processing program and the Zone of Interior processing program and the modification in question concerned the implementation of the Squadron Analysis-Reporting program. During this period various reports and procedures were streamlined and improved.

Post Armistice COMINT Negotiations: Although the proposed revision of Appendix "B" of the BRUSA Agreement was approved in March 1953, the essential implementing directives for utilization or exploitation of various types of low-level communications intelligence, provided for in the revised Appendix, were not issued by USCIB,* prior to July 1954. This tardiness resulted, primarily, from the inability of the USCIB committee to properly categorize COMINT. Therefore, the promulgation of a USAF regulation on exploitation of low-level COMINT was not accomplished. Moreover, the promulgation of a proposed USAFSS Manual for tactical production and exploitation of COMINT was not accomplished prior to September 1954.**

* See Official Recognition of TACOMINT, Chapter VI, this Study.

** Information furnished by Captain Billy H. Harper and Mr. Glen H. Hartman, DCS/Operations, Hq USAFSS.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

353

Meantime, USCIB approved the JADF Operations Plan 52-53 in August 1954, which concerned the passing of certain types of COMINT from the USAFSS units in Japan to the JADF AC&W System.²³ The plan authorized direct primary and backup communications between the USAFSS organizations in Japan and the nearest Air Divisions and attendant TADC activities. Subsequently, procedures were adopted by which some types of information could be passed to the TADC's as radar plots in the clear. Other information would be supplied to the Chief Controller in encoded forms. However, the code would be known only to four individuals--Division Commander, Deputy Commander, DCS/Operations and DCS/Intelligence, one of which would be available to the Chief, TADC Controller.*

USCIB issued a directive in August 1954 which authorized the disclosure of certain COMINT information to unindoctrinated personnel in an emergency. This policy was promulgated as an experiment for one year.²⁴ Finally, a Close Support COMINT Plan was developed and approved by the Director of Intelligence, USAF and NSA for

23. USCIB 13.8/27, 16 Aug 1954.

24. USCIB 4.2/24, 16 Aug 1954.

* Information furnished by Captain William C. Schwitzgebel.

182

~~TOP SECRET EIDER~~

354

~~TOP SECRET EIDER~~

Close Support of Tactical Air Forces world-wide.²⁵ However, official USCIB sanction of "Bittersweet" operations was not given.

CONCLUSIONS DRAWN

It is evident that the Korean conflict definitely conditioned, and in some instances, altered traditional US COMINT doctrines and practices.

Early Physical Security Conclusions. The experience gained by the USAFSS Far East units during the time they were supplying a "Y" type service to the 5th Air Force illustrated not only the requirements for new operational techniques and facilities, but also the need for modification, and in some instances the establishment of new security [physical] directives. In discussing this aspect of Air COMINT operations in October 1952, the 6920th Group wrote:

The Detachment Commander should have full responsibility and control in regard to physical security [of the TACG]. The physical security of the area should not be subject to any interpretation by personnel of other commands, regardless of their station. Also, evacuation of personnel and vital assignments should be at the discretion of the Detachment Commander. The TACOMINT unit can never fully depend on other commanders to provide the evacuation facilities. [Therefore] adequate transportation for ground evacuation of such teams should be an integral part of the detachment equipment, to insure protection of the operations if the local command fails to provide air evacuation when required.

25. Annex H, AFSSEWMP, 1 September 1953.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

355

Concerning the security of Air COMINT personnel, the Group maintained that:

. . . In a fluid combat situation there is an ever-present risk that indoctrinated personnel will fall into enemy hands. We cannot always operate within the safety limitations of pertinent directives and still be in a position to accomplish our tactical mission. We must recognize the risk by modifying the directives and by developing and implementing a policy which will permit and provide answers for interrogation and limit the level of general COMINT knowledge possessed by persons so exposed. . . .

Early Exploitation Conclusions. One of the major lessons learned during the first year of the war concerned exploitation of COMINT support, viz., the effectiveness of COMINT Close Support was in direct proportion to the established COMINT exploitation facilities both physical and personnel-wise. About this latter factor, the Air COMINT personnel wrote:

After the arrival of a USAFSS Liaison Officer, our product was utilized to a greater extent, but often its value was lowered because of the absence of an experienced evaluator in the unit being served. Unskilled handling of COMINT creates an unhealthy situation and could create a catastrophe.

. . . Further, to prevent compromises caused by ignorance or overeagerness, USAF must form and disseminate a firm policy to all Air Force customers, especially TACOMINT customers, which will provide adequate cover and security measures for the source of intelligence. . . . Methods of utilization must be thoroughly understood by all parties concerned well in advance of the implementation of future TACOMINT services. This is also true of the AC&W units involved. For, most of the difficulties encountered resulted from inadequate coordination, a hindrance caused by security measures, viz., indoctrinated planning vs unindoctrinated implementation. Air Force must realize that COMINT is useless unless sufficient indoctrinated personnel are present in various headquarters to properly employ the COMINT.

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~~TOP SECRET EIDER~~ 183 of 192 Pages

356

~~TOP SECRET EIDER~~

Finally, we must have complete honesty in reporting even if the COMINT reports have political significance. We cannot distort the facts and at the same time, produce a trustworthy product. Withholding information is equally as dangerous and cannot be condoned in an organization which has our mission. This attitude will most certainly cause some official reprimands and some ill-feeling. However, it will prevent Washington from being caught unaware if the enemy decides to take political exception.

Early Intelligence Requirements Conclusions. Another outstanding lesson taught by experience during the early months of the conflict, from the Air COMINT support standpoint, was that firm intelligence requirements are essential to efficient Close Support COMINT Operations. In reviewing the Air COMINT Support during 1950 and early 1951, the 6920th Group wrote:

Had we had [firm written intelligence requirements] on record, we would have had a lever with which to move USAF, GHQ and our own Headquarters. A unit must have a mission before it can start demanding personnel, real estate and equipment. We went to Korea to serve a fighting Air Force with nothing but word of mouth commitments and requirements. A written request would have tilted the scales in our favor. . . [Further] . . . it is unhealthy to operate without a written record of the consumers' needs.

In relation to conclusions drawn about both exploitation and requirements, as early as July 1951, the 1st RSM maintained that :

Uninformed requests and/or demands by our customers who did not know what constituted finished COMINT and raw COMINT data have cost us countless manhours and dollars. . . . When they understand fully what we could and could not do, it made for a better product and happier relations.

Early Conclusions Concerning TACOMINT Support. The 6920th Group also had the following to say about the support of a tactical air commander:

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

357

. . . When a major commander in an operational theater begins to seek a service of any kind which is even remotely within our capabilities, we should make an immediate effort to exploit our capabilities in that direction. A tactical commander at war has, or can obtain, the authority to exploit the capabilities of a support organization. So, we should make every effort to provide the support, with maximum security for the service desired.

In late 1952, the early warning responsibility of the Air COMINT units was stated in the following manner by the Group:*

. . . of primary importance is the need to provide capabilities in being for dealing with Soviet satellites. Agreed that the big picture is Russia, but to confine our efforts to Russian cases would. . . limit our early warning capabilities. . . and might provide for surprise attacks from Soviet satellites. . . In light of this the Korean experience, a sound yardstick for future USAFSS capabilities could be the number of USAFSS personnel who speak the satellite languages. If they are few, then we have missed learning a major lesson recently taught. . . If we wait until the satellites are committed before we develop a service similar to our support of the 5th Air Force, again we may be committed to use of indigenous personnel. As long as indigenous personnel are employed in the production of any form of intelligence, the compromise factor will be ever-present. . . .

Outstanding Conclusions Drawn. Aside from consistently illustrating the need for modification of Air COMINT operational concepts relative to weather intelligence service and flexibility of COMINT operations, the Korean action also crystallized and validated an effective tactical COMINT exploitation doctrine. The processes began in late May 1951

* The quotations cited were extracted from various observations by the 6920th Security Group during the latter part of 1952.

HQS USAFSS TROOP 10-11-52

~~TOP SECRET EIDER~~

184

~~TOP SECRET EIDER~~

358

and continued through April 1953. This new Tactical COMINT doctrine was expressed as a type of COMINT derived from enemy radio transmissions which is specifically applicable to a tactical situation. That is, it is a type of intelligence inherent in enemy combat operations which can be tactically exploited and has little or no value otherwise.²⁶

As for the crystallization and practical application of this tactical doctrine, it consisted primarily of three preliminary phases and one conclusive test. In the early stages of the Korean conflict, results of the ROK effort, e.g., decrypts of flight service traffic (C/W) passed by the NKAf, were expeditiously passed to Air Force units. The second phase was accomplished by Team I of Detachment 13, which collocated with the TADC at Kimpo and exploited the Russian GCI (C/W) traffic. The third phase was accomplished by a unit of Detachment C. This unit exploited the Communist System of tracking communist aircraft 25x3 plus some Russian and Chicom GCI traffic and passed it as radar type information over an FM circuit to the TADC. The final or test phase was entered when the Communists quit passing tracks on their own aircraft. Hence, the tactical COMINT unit

P.L. 86-36
EO 3.3b(3)

26. Memo for the Commander, 6920th SG, from 15th RSM, Subj: TACOMINT Operations in Support of Fifth Air Force in Korea, 12 Feb 1954. s.d. 409.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

359

had to concentrate primarily on GCI traffic.* About this final phase, the 15th RSM wrote:²⁷

The highest peak in usability of the information was gained by the solution applied to the problem. Intercept personnel were moved into the TADC to pass information directly to the controller. Information which could be converted disguised into radar plots was passed directly to the plotting board for handling as radar information. Other information which could not be disguised was passed directly to the Controller, so that he could view the material and more effectively control his aircraft. The sources of this operation furnished one of the outstanding conclusions, relative to both communications intelligence and tactical air operations, resulting from the Korean conflict. This was that "it is essential to collocate a TACOMINT Unit with the TADC to provide immediate information at the point of greatest usability."

Influence Exerted by Experience Gained. The tactical COMINT Service supplied during the Korean conflict was officially acknowledged in many ways prior to the cessation of organized hostilities. Also, many of the principles rediscovered and/or established by the tactical Air COMINT units impregnated the operational philosophy of the Air Force COMINT Service. However, complete, official recognition of these concepts crystallized and techniques employed in furnishing the tactical Air COMINT Service was less readily accorded. Probably, the best reflections of the concerted effort to firmly establish, as principles, the lessons twice learned within a decade are the policies stated in

27. Ibid. s.d. 409.

* Information furnished by Major George I. Mason, DCS/Operations, and Major Robert O. Brooks, AFSCG, Hq USAFSS.

185

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

360

the USAFSS Manual (proposed) for "Tactical Production and Exploitation of COMINT Close Support." For instance, under the Section on "Principles of Organization," the flexibility of response was established as follows:

. . . . COMINT Close Support organizations must be adopted to meet the customers organization and requirements.

Field Control: Provide maximum exploitation of the flexible character of COMINT Close Support. This can be achieved only when the organization and command structure exists which permits the immediate application of intercept and analysis resources to the most profitable of the many tasks at hand. . .

Flexibility: Maximum flexibility in the organization and control of COMINT field units is necessary to meet frequent changes in the general military situation, in enemy communications, or in COMINT techniques, all require corresponding changes in the COMINT Close Support operation and organization. Such changes are made by rapid relocation of facilities and shifts of emphasis by the COMINT Close Support producing units.

In relation to establishment of COMINT Close Support requirements the proposed manual stipulated that:

. . . the Theater Air Commander establishes the requirements for COMINT Close Support to planned operations and obtains necessary authority for the exploitation of COMINT Close Support.

In turn, USAFSS would determine the volume and type of available COMINT which could be classified as COMINT Close Support and tactically exploited to fulfill those requirements. Also, USAFSS would determine the size and composition of the Air COMINT unit required for the service, as well as the production techniques to be employed.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

361

Moreover, the methods or concepts of tactical COMINT Service were clearly recognized in the manual. The section on "Concepts and Methods of Operation," states that:

The most important factor governing the employment of COMINT Close Support is that the information of . . . immediate tactical importance must reach the proper persons in time for them to take required action. In air operations, the persons who have authority to act on such information are the intercept directors Controllers of the Air Operations System. . . . COMINT Close Support is fed into the Air Operations System at the Control and Reporting Centers previously designated as TACC, which normally exercise direct tactical control of aircraft in its area. . . . When the USAFSS intercept Analyst Officers in the Close Support Analysis and Plotting Van previously designated as TACOMINT filter Center receives information that should be acted upon immediately, he will inform a plotter behind the plotting board in the Control and Reporting Center of this information in radar plot terminology. This individual will then enter that information received on the plotting board so that the Air Intercept Director may take action which he deems necessary. . . . COMINT Close Support which is not adaptable to radar type reporting and plotting will be passed directly to the intercept director verbally by the USAFSS representatives in the Control Reporting Center van.

The above concept of Air COMINT employment and operation was further recognized in the proposed Manual, under "Principles of Employment":

. . . . A tactical situation involving aircraft in flight changes rapidly, and information which may be of critical value at the proper time can be valueless in a matter of minutes. This fact makes speed essential in the production of such information and requires that dissemination be made directly to the personnel who have the authority and responsibility for acting on the information. The requirement for speed makes it necessary to:

- (1) Provide by Analysis, COMINT Close Support at the point of Intercept.

136

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

- (2) Locate the producing COMINT Close Support Unit at the point where the information is used tactically, or
- (3) Provide direct, reliable, rapid and secure communications between the COMINT Close Support unit and the persons who take action on the information.

However, in relation to the security requirements for exploitation of this COMINT Close Support Service, the manual was more conservative in its official stand than some of the field views expressed late in 1952. The manual states that:

. . . The enemy normally has the capability of rendering his communications more secure against intercept and/or analysis. He can be expected to do so whenever he becomes aware of successful COMINT Close Support exploitation of his communications. For this reason, every reasonable effort must be made to conceal from the enemy the degree of success achieved in our intercept and analysis. Hence, the following principles apply:

- (1) Knowledge of COMINT Close Support Operations and the success must be strictly limited to those individuals who need to know in order to perform their duties.
- (2) COMINT Close Support disseminated outside secure COMINT channels must not indicate the COMINT Close Support source of the information and where practical, should be passed in such form that it may plausibly be attributed to other sources.
- (3) COMINT Close Support to be acted upon should when possible, be confirmed through other intelligence sources and the action should be attributed to information from those other sources.

Summary. To realize the radical changes in methods of supplying COMINT for tactical air operations, which occurred during the Korean conflict, one has only to contrast the initial entrance of USAFSS into the Korean action* with the service of Flight "B", 15th RSM to the

* See Project Willy, Chapter II, this Study.

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

363

5th Air Force at the end of organized hostilities. However, if the 1st RSM had possessed the physical facilities and qualified personnel necessary to furnish complete COMINT Support to the tactical air units in 1950, the prevailing philosophy or doctrine of COMINT Support to combat units would have severely restricted that service. Thus, the struggle to develop a tactical air COMINT capability and the operational and policy problems experienced in establishing that capability could well have revealed the outstanding lesson of the Korean conflict. At the least, the three years of experiences resulted in the rediscovery and crystallization of principles developed and employed by signal intelligence agencies of World War II. At the most, these experiences disturbed the static pattern of archaic philosophy surrounding the science of communications intelligence, thereby establishing a healthy precedence for future observance.

187

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

365

G L O S S A R Y

A-2	Air Intelligence Officer
AAC	Alaskan Air Command
AACS	Airways and Air Communications Service
ACP	Collective Weather Broadcasts (Pacific)
AC&W	Aircraft Control and Warning Squadron
ADC	Air Defense Command
AFB	Air Force Base
AFOIN	Air Force Office of Intelligence
AFOIN-1	Air Force Office of Intelligence, Collection
AFSA	Armed Forces Security Agency
AFSCC	Air Force Special Communications Center
AFSG	Air Force Security Group
AFSSCLO	Air Force Security Service Control Liaison Officer
AFSSLNO	Air Force Security Service Liaison Officer
A/G	Air-to-Ground
AM	Amplitude Modulated
AMC	Air Materiel Command
AMP	Weather Circuit Callsign
AN/ANQ-1	Wire Recorder, Airborne
AN/ARC-33	Airborne Radio Set
AN/GRC-26	Ground Radio Communications Set

138

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

AN/MRD-5	Radio Direction Finding Set
AN/TRD-10	Very High Frequency Radio Direction Finding Set
AN/URD-2	Very High Frequency Radio Direction Finding Set
AOB	Air Order of Battle
APG	Air Proving Ground
APOLLO	Cryptosystem
ASA	Army Security Agency
ASAPAC	Army Security Agency, Pacific
ATIS	Air Technical Intelligence Summary
AWS	Air Weather Service
AWW	Air Weather Wing
BC-787	Very High Frequency Radio Receiver
BGA	Control Station Designator for Collective Weather Broadcasts
Bittersweet	Far East COMINT Ferret Warning System
Bluesky	6920th Airborne Intercept Project
BOMCOM	Bomber Command
BRUSA	British-United States of America
C-47	Twin-engine Transport (USAF)
C/A	Crypto-Analysis

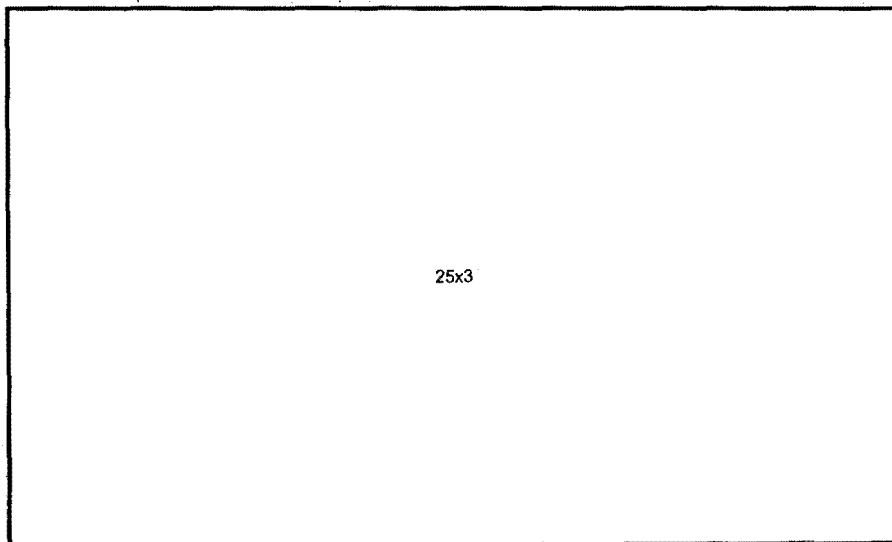
P.L. 86-36
EO 3.3b(3)

25x3

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

367



25x3

P.L. 86-36
EO 3.3b(3)

CG	Commanding General
Channel 36	World-Wide Weather Dissemination System (U.S.)
CHICOM	Chinese Communist
CIOP	Communications Intelligence Operating Procedures
CIA	Central Intelligence Agency
CINCFE	Commander-in-Chief, Far East
CINCPAC FLT	Commander-in-Chief, Pacific Fleet
CO	Commanding Officer
COMNAVFE	Commander, Navy, Far East
COMINT	Communications Intelligence
CONAC	Continental Air Command
C/S	Chief of Staff
CW	Continuous Wave
DAF	Department of the Air Force
DASITS	Daily Situation Summaries

~~TOP SECRET EIDER~~

189

368

~~TOP SECRET EIDER~~

DCR	Daily Coverage Report
DEN-17	Radio Fingerprint Set
D/F	Direction Finding
D/I	Director of Intelligence
DIRAFSA	Director, Armed Forces Security Agency
DIRNSA	Director, National Security Agency
ECM	Electronic Counter Measures
ELINT	Electronic Intelligence
EUSAK	8th U. S. Army, Korea
EW	Early Warning
FEAF	Far East Air Force
FEAMCOM	Far East Air Materiel Command
FEC	Far East Command
F-86	Jet Fighter Plane (USAF)
FM	Frequency Modulation
FU/PAC	Field Weather Processing Unit, Pacific
FWPU	Field Weather Processing Unit
FWPUPAC	Field Weather Processing Unit, Pacific
FWPU Lant	Field Weather Processing Unit, Atlantic
G-2	Assistant Chief of Staff, Intelligence
G/A	Ground-to-Air
GCHQ	Government Communications Headquarters
GCI	Ground Control Intercept

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

369

GHQ	General Headquarters
GO	General Orders
HF	High Frequency
HO-17	Mobile Type Hut
IBM	International Business Machine
Ibid	In the same place (Latin)
IL-10	Medium Bomber (USSR)
INTSUMS	Intelligence Summaries
IP	Intercept Plan
JADF	Japanese Air Defense Force
JCS	Joint Chiefs of Staff
JOC	Joint Operations Center

P.L. 86-36
EO 3.3b(3)

25x3

LF	Low Frequency
LNO	Liaison Officer
LODKA	Codeword used by Communist for Training Flights.
LSIB	London Signal Intelligence Board

~~TOP SECRET EIDER~~

190

370

~~TOP SECRET EIDER~~

MCS	Megacycles per second
MIG-15	Russian built, single engine Jet Fighter Aircraft.
MIG-17	Modified version of MIG-15
NAVCOM	Naval Communications
NCO	Non-Commissioned Officer
NCOIC	Non-Commissioned Officer in Charge
NK	North Korean
NKAF	North Korean Air Force
NSA	National Security Agency
NSAF	National Security Agency, Far East
NSCID	National Security Council Intelligence Directive
ODC	Office, Deputy Chief of Staff, Operations
ODO	Office, Directorate of Operations
OFQ	Control Station Designator for Collective Weather Broadcasts
OIC	Officer-in-Charge
OJT	On-the-job-training
ONI ONI	Office of Naval Intelligence
OP	Operational Priority
OSI	Office of Special Investigation(USAF).
P-51	Propeller Driven Fighter (USAF) (Currently known as F-5)
PE-75	Power Generator
PE-95	Power Generator
PU-58	Power Generator

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

371

PVO Russian Early Warning System (Defense)
PYTHON Cryptographic System
QRM Man made radio interference
QRN Atmospheric Interference

25x3

P.L. 86-36
EO 3.3b(3)

RADRONMO Radio Squadron, Mobile

25x3

RB-29 Reconnaissance Bomber (Medium), USAF
RB-50 Reconnaissance Bomber (Medium), USAF
RDF Radio Direction Finding
RFP Radio Finger Printing
ROK Republic of Korea
ROKAF Republic of Korea, Air Force
ROKNAV Republic of Korea, Navy
RSM Radio Squadron, Mobile
R/T Radio Telephone, Voice

25x3

~~TOP SECRET EIDER~~

191

372

~~TOP SECRET EIDER~~

RU-AIR-TIS Russian Air Traffic Intelligence Summary

25x3

R-220/URR	Very High Frequency Radio Receiver
SAC	Strategic Air Command
SCR-291	Radio Direction Finder Set
SCR-399	Radio Set
SECCOM	Security Committee
SOP	Standard Operating Procedure
SRB	Supplemental Research Branch
SRS	Supplemental Research Section
SSN	Specification Serial Number
SSO	Special Security Office
SSR	Special Security Representative
SUSIO	Senior United States Liaison Officer
SWI	Special Weather Intelligence
T/A	Traffic Analysis
TAC	Tactical Air Control
TACC	Tactical Air Control Center

P.L. 86-36
EO 3.3b(3)

~~TOP SECRET EIDER~~

~~TOP SECRET EIDER~~

373

TACOMINT	Tactical Communications Intelligence
TADC	Tactical Air Direction and Control
TC-9	Radio Intercept Control Set
T/D	Table of Distribution
TECSUMS	Technical Summaries
TEXTA	Technical Extracts of Traffic Analysis
TI	Traffic Identification
TO&E	Table of Organization and Equipment
TSC	Top Secret Control
TWX	Teletypewriter Exchange
TU-2	Light Bomber (USSR)
UHF	Ultra High Frequency
UN	United Nations
USA-38	1st RSM
USA-54	15th RSM
USA-59	6920th Security Group
USAF	United States Air Force
USAFE	United States Air Forces, Europe
USAFSS	United States Air Force Security Service
USCIB	United States Communications Intelligence Board
US/GB	United States - Great Britain
USM-36	Army Intercept Station
USM-7	Army Intercept Station

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~~TOP SECRET EIDER~~ 192 of 192 Pages

DOCID: 3737095

374

~~TOP SECRET EIDER~~

USN-13 Navy Intercept Station

25x3

P.L. 86-36
EO 3.3b(3)

USSR	Union of Soviet Socialist Republic
US/UK	United States - United Kingdom
VCS	Vice Chief of Staff
VHF	Very High Frequency
VIP	Very Important Person
WDC/CCO	Washington, D.C., Control and Collection Office
WPM	Words Per Minute
WX	Weather
XGF	Weather Station Designators
XLJ	Weather Station Designators
XOP	Weather Station Designators
Y Service	TACOMINT Service
ZI	Zone of Interior

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