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OFFICIAL REPORT



NATIONAL SECURITY AGENCY  
FIELD COMMANDERS CONFERENCE

National Security Agency

Fort George G. Meade, Maryland

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OPENING ADDRESS BY  
LIEUTENANT GENERAL RALPH J. CANINE, USA  
DIRECTOR, NATIONAL SECURITY AGENCY

Welcome to Ft. Meade. This is a real milestone for me to bring in from the field to our new site commanders and their operating assistants. We have looked forward to Ft. Meade for a good many months. I was here the day our people started moving in, the day we turned the lights on. I spent most of that day wandering around, talking to the GS-5s, 7s and 9s, asking them what they thought about the new building. Their generic comment was "Well, if the permanent building is as much of an improvement over these temporary buildings as the temporary buildings are over those wings at the Hall, General, you've got it made."

We think we are going to have a tremendous plant here; but the walls are bulging already. People looked askance when we told them about the floor space we were going to have when we went to work on the building. We need twice as much as we have now. We are going to build up, and it is going to be a tremendous plant. I am pleased to get the world-wide organization here. I welcome you today and I am glad to see you.

The Number 1 problem that faces any organization is communications. I am talking about communications between the echelons of any large organization. There gets to be a point in the vertical depth of an organization in which the simple passing up and down of the orders of the top hierarchy, and the desires, recommendations, and reactions of the bottom and intermediate echelons, become the most important problem.

There are two fundamental problems involved in communications. One of them is comparatively simple, and to people who wear uniforms or to people who don't wear uniforms, but who are involved in the operation of a military organization, it should represent no problem. That is the actual doing of what you are told to do when you are told to do it. When you are told to do something, the problem is simply just going ahead and doing what you are told to do. It is simply the problem of carrying out orders, a problem of discipline and training. When orders are issued, and they can be verbal or written, the well-trained, disciplined, loyal person carries them out without delay and immediately passes on what has been given to him.

We're getting somewhat better at that, but we're a long way from perfection, and in this particular case I am an extreme perfectionist. I see no excuse, and I mean that literally. I know of no explanation that can justify failure on the part of the head of any echelon in an organization to do what he has been told to do. He has one problem, however; he must assume that the semantics of everyone in the organization are identical, that the words mean the same to the fourth echelon down as they did to the fellow who drafted the order. The English language poses a real problem. The business of educating and training people so that they speak the same language and use words with the same meaning is not an easy one. It is not an impossible one. We can do the fantastic, so it isn't impossible. We can solve our troubles in getting people to understand the use of the words so that we all use words which have essentially the same meaning.

One of the big advantages of a conference such as this is that we take one more step nearer perfection. Now understand me, I am not always a perfectionist. I submit that we can get pretty close to our goal. A conference such as this makes a tremendous step forward in attaining as

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close to perfection as we can get. We have made considerable progress in both phases of this communication problem. There is a growing understanding of words within our world-wide organization. It is still considerably less than what I would like to see. Let's make it one of our primary missions this week to make sure that everybody leaves here closer to talking the same language than when we came.

And that leads me into my next point. All of you don't have to have identical views about solving the COMINT problem. It isn't at all necessary to a successful solution of the problem that we all have the same views. I would suspect you if you did. As a matter of fact, this problem of getting communications intelligence is a very intricate and difficult one.

Differences of opinion are good. When people are asked for their opinions, or if they think it is important that somebody know their opinions even without being asked, one expects to get honest, considered views. In general, there are a good many ways of doing the same thing, even in the COMINT business. There are a good many ways of doing most, if not all, of the operations that go into this COMINT business, and the choice between some of them is a close choice. But we can't have all the horses on the team going in different directions at the same time. It is essential that somebody take hold of the reins. The time for discussion, the time for airing differences of viewpoints, is before the team starts. Once underway, the good soldier quits even thinking about the tuft of grass on the other side of the road and keeps on heading down the road, pulling his share of the load, doing it along the way selected for the team to go. There is a time for discussion and there is a time for action; when the time for action has come, the time for discussion must cease. We can't have unanimity, that "every-horse-in-the-collar-at-the-same-time" type of operation, if we haven't had good communication on both facets before discussion stops and action begins.

The team is now on the way. A lot of water has gone over the dam. More words have been used - I should have said abused - in this racket--well, just so many words abused in it that it is beyond my comprehension. But we are fairly well along the road, and we have made considerable progress. We have had some detours, we have had some stops, but progress has been sure and it has been in the right direction. You people and your predecessors over the past four or five years are the people who deserve the credit for that progress.

The National Security Agency and the three Service Cryptologic Agencies are service organizations. I have never yet seen a KIA tag on a dead Kraut which claimed he was killed by a mimeograph machine. The number of scalps on the belts of people in this racket are few and far between, that is, bloody scalps where you have done it yourself with your own knife. We don't issue orders that put airplanes in the air or start guns shooting or battleships floating around. Somebody else does that, and the guy who does that is our customer. Anybody in an intelligence organization is running a purely service organization. We are in identically the same kind of spot as the truck driver who goes back to the pile of ammunition on the beach and hauls it up to where the men serving the guns can get hold of it and put it in the guns. It is one of those necessary evils; there is not much glory in it. I am convinced that the guy who takes the scalps is the fellow entitled to the glory.

When you run a service outfit, you don't run it on rules set by yourself. Those rules, and the ultimate type of thing that must come

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out of the pipeline, are never set by an intelligence character, by me, by you, or by anybody in this room. We must run the communications intelligence business to serve the people who make decisions. We can make decisions in our racket, but we don't make decisions that kill Krauts, and the future of the U. S. is in the hands of the people who make decisions that kill Krauts.

This is no tactical exercise we are involved in here. Don't mistake me. I am simply trying to impress upon you that the fellow we must please is the commander. Unfortunately, in our racket, we have to work through intermediaries too much, and I go back to my opening remarks about communications. Very often we don't speak the same language. It is nobody's fault. We just don't speak the same language. We didn't grow up on the same street. Some of us grew up four blocks over and three blocks down, some on the street that the streetcar goes down, but we have the mission of supporting the commanders. That is our job. It is always the support guy's job to give the commander what he wants. The commander doesn't tell you how to do it, but you have to give him the kind of fuse he wants, in the numbers he wants, where he wants them, and at the time he wants them.

It is the job of the commander to tell the supporting elements what he wants. If he wants them really turned out in a hurry, he ought to tell them why. He will get what he wants much quicker, and with a lot more understanding, if he tells that supporting fellow why he wants them. Many times it won't be possible, and I used the word "possible" deliberately, to turn over to the commander exactly what he says he needs. But if the fellow who is running the service organization knows that a particular fuse was demanded, and he can't find that kind of fuse, he will come up with the best possible substitute.

We need to preach a doctrine of education so that we learn why people want things, why the commanders want things, and that applies at all echelons. Now let me repeat that we are a service organization which gives the commanders what they want or the best possible substitute for it, if what they want is not obtainable.

Let me elaborate for just a moment on what is obtainable. Too often people lay requirements on us without knowing the limitations and capabilities of the over-all communications intelligence organization. It then becomes the duty, the responsibility, of every member of that organization to educate the people with whom he is doing business.

The Number 1 limitation on the capabilities of this organization is that the traffic must be on the air. We don't send messages ourselves. Somebody must have sent it for us to be able to go into action. In my discussion and talks around here with people, that is the most commonly misunderstood facet in this whole operation, that we are limited by whether somebody puts it on the air. If they didn't, there isn't a thing we can do about it. We can't say, "Hey, put that particular thing on the air tomorrow on your next schedule." It doesn't work that way. Entirely too many senior commanders misunderstand that particular point. I am reasonably sure that a good many commanders at lower levels misunderstand this. It becomes the job of everyone of us to be sure that, insofar as we can influence it, the commanders talk the same language and use words with the same understanding and the same connotation as we do. You are the ones who have to do something about it. The commander isn't going to come around and ask you. I can assure you of that. He has too many other responsibilities. But there are a good many other ways in which the initiative is yours to push this particular type of education.

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We do a tremendous amount of word-splitting around here. I don't think it makes a bit of difference in many sections of our organization and in our problems that something shall be done exactly this way, but it makes a big difference if things are done uniformly where more than one person is involved in the operation. But I pick up the cable book in the morning and I see a tremendous number of cables going back and forth, with people arguing about what to me seem to be sometimes down right silly questions about small points.

When you sit in on these conferences and you're dealing with somebody you think is going to task, maybe it's all right to battle about little words. But the only way this organization can operate is on faith, faith that we are all trying to get the same job done. If we haven't got it, we don't belong in the organization. It seems unreasonable that we do as much word-splitting as I see in the cable book. Now I know what you are thinking. You will say I don't know what it's all about. I don't, but every once in a while I get a little bit more interested than usual and get hold of the final outcome on some of this word-splitting and Gentlemen, I can't see that it makes a bit of difference. We spend hundreds of dollars of Uncle Sam's, yours, and my money on cables back and forth arguing about words. I don't mind it so much when it is in the discussion stage, but I am not going to tolerate it when it is in the action stage. The time for word-splitting has passed then.

I have the greatest admiration for people who can do a top-notch job they don't like and don't believe in. Anybody can do a good job if he likes it and thinks that it ought to be done. He doesn't deserve any credit. Frankly, he is simply feeding his own ego. All he is doing is getting more ice cream, pink ice cream.

The fellow who deserves the credit in this world is the fellow who gets a job he doesn't like and doesn't believe in, who thinks he is doing it wrong, and still does a good job. Now there is the only guy in the world who deserves much credit, and I have supreme admiration for those people. You separate the sheep from the goats very fast when you take the fellow who has a fine reputation and is doing a job he likes and believes in, and put him to doing things he doesn't like and things he thinks are being done wrong. The credit should be passed out to the fellow who can say "They can't make it too tough on me. I don't care whether they think they are harrassing me. They may think they are doing it to me, but I'm going to show them that I can do a job when they tell me to do it." Now that is the epitome of any organization, in which people do what they are told to do when they are told to do it, whether they like it, or whether they believe in it or not.

That will get lots of scalps. Then the day comes around to elect a new chief, the tepee smoke-hole will be chock-full of scalps. You will find the guys who do what they like to do, in the only way they think the thing should be done, in the way they want to do it, will never get to be chiefs. The world just isn't made that way. You have to be put in the fire sometimes to be tried. And a lot of you are being tried now. A lot of you are being forced to do things you don't believe in, that you think are wrong. You think the U. S. is going to hell because you have to do them. You are sure that the A Bomb over Detroit is much closer because you are doing it this way. I have supreme admiration for those guys when they turn out a top-notch job, and those are the kind of guys I like. Those are the kind of guys I want. Those are the kind of people who make the U. S. secure. They are about the only thing between us and non-security.

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We have some people here this morning whom we invited from the consumers. My definition of consumers is a little different from what it was a moment ago. I am talking about the intelligence characters of one type or another. I am glad you are here; I talked part of the time to you. The last session this morning is one of these round-tables. I prefer that you don't go in and bother them. They might talk about you. They might say things you don't like. I don't want anybody to get mad and go home taking their rag dolls with them, so stay out of there.

We are glad to have you all here. Let's get a lot of work done this week. Remember, my motto is, "Do what you are told to do when you are told to do it." Thank you.

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## MEMORANDUM FOR THE RECORD

Topic 1: Decentralization, Plans and Progress  
General Session

1. Mr. Conley, NSA-90, introduced Mr. Gietkowski, NSA-063, who presented the following:

General CANINE, Distinguished Guests, Ladies and Gentlemen:

Decentralization is probably the broadest, most significant, and at the same time, one of the most complex programs the National COMINT Establishment is engaged in today.

Insofar as management is concerned, decentralization is nothing new. The Military Establishment has accepted the principle of decentralization. As you know, the manual, "JOINT ACTION ARMED FORCES" lists the three basic principles for sound organization as: "Centralized Direction," "Decentralized Execution," and "Common Doctrine."

Business, too, has accepted the principle of Decentralization. We see automobiles on our highways bearing stickers "Product of Texas."

The assembly of Ford automobiles, for example, formerly performed only at Detroit, is now decentralized to various cities throughout the United States.

COMINT, too, is Big Business, and the National COMINT Establishment is a large corporation. But here the parallels fade, for our reasons for decentralization are quite different from those of industrial firms.

Before we discuss reasons for decentralization of COMINT processing, let me define some terms.

COMINT decentralization: COMINT decentralization is the assignment to a field unit of responsibility within the National COMINT Establishment for unique, accurate and timely reporting of a COMINT entity, and the performance by that unit of various COMINT production tasks associated with the exploitable COMINT problems involved in the COMINT entity.

Decentralization is not a dismemberment of COMINT production and reporting activity. It is a sharing of these responsibilities. It is aimed at extending forward responsibility for timely production and reporting tasks. The National Center always remains responsible to some degree for COMINT entities which are decentralized.

Decentralization is intended as a means for integrating and fusing all U. S. COMINT activity into one flexible and responsive whole, by combining the continued technological advancement within the National Center with the increasing potential for a high degree of COMINT competency in the field.

Let me clarify the terms "COMINT Entity" and "COMINT Problem" as used in Decentralization.

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EO 3.3(h)(2)~~TOP SECRET EIDER~~

A COMINT Entity is any distinguishable foreign communications complex. For example, we have

A COMINT problem is any operation within the entity which involves processing and reporting activity sufficient to produce a single, unique type of COMINT end-product. For example:

Now, why COMINT decentralization? Is economy our principal objective? Economy in decentralized operations will be sought, but will not always be achieved. At times, decentralized operations may cost us more.

The primary objectives of decentralization are: Early Warning, Support to Field Commanders, Maintaining Combat Readiness and Elimination of Unnecessary Duplication.

The entire National Defense Establishment places a heavy reliance upon COMINT to provide early warning. How we meet this requirement will be the subject of a presentation this afternoon dealing with "Alert Procedures."

COMINT is expected to provide indications of enemy intentions, and to provide indications of imminence of attack or notification of attack.

The Director has stated that the principal mission of the National COMINT establishment, our main purpose of being, is to provide this early warning if it is at all humanly possible to do so. Since we live in an era of super-bombs and of super aircraft capable of carrying such weapons super-distances, we must have the earliest possible warning. It is for this purpose that we will decentralize to field COMINT units, as close as possible to the source of intercept, any and all such COMINT entities which might produce Early Warning information.

The second objective of decentralization is to provide Direct and Immediate Support to our Commanders in the Field. The provision of timely COMINT support to meet requirements set forth in the EEI's of field commanders is essential. COMINT is often the field commander's principal source for intelligence concerning forces which oppose him. Accounts of Admiral Kimmel's story of the Pearl Harbor disaster serve to illustrate this objective. A present day example: Washington and field consumers have stated they will need to rely on COMINT almost exclusively for timely intelligence concerning the Formosa Situation.

A third reason for decentralization is To Maintain Combat Readiness. By decentralizing to field COMINT units timely reporting responsibilities on targets identical or similar to those they would encounter in time of war, we can insure the existence of a sustained, high state of readiness for combat.

A fourth objective of decentralization is the Avoidance of Unnecessary Duplication. This is linked to economy of decentralized operations which I mentioned earlier. Every COMINT person, place or thing is a precious commodity, particularly in these days of limited national defense budgets.

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EO 3.3(h)(2)~~TOP SECRET EIDER~~

We must make maximum use of every available COMINT resource at home and abroad, and the efforts at home and in the field must be made to complement and supplement each other.

While every effort will be made to eliminate unnecessary duplication under the decentralization program, some duplication is not only unavoidable, but is necessary, if the primary objectives of decentralization are to be achieved. I will further discuss duplication in a few moments.

The decentralization program today may be viewed as having gone through three distinct phases.

The first phase might be called "laying the foundation."

This phase began with the establishment of the National Security Agency and the promulgation of the initial Operations Orders for field units. These operations orders contained wordings allotting general tasks to each unit. One unit was tasked with exploitation of

The operations orders assigned each field processing center a general area of processing responsibilities. This was not decentralization, however. During this period the detailed concept, and policies of decentralization as we know them today were not yet drawn. The promulgation of missions by means of the operations orders permitted definition and realignment of tasks and served to eliminate some duplication in field processing.

During this first period, however, decentralization was already more than a twinkle in the Director's eye. Many of you were present at our first Field Commanders Conference held some 16 months ago. The theme of this conference was the need for the field to become professional in the COMINT business, and become professional rapidly. This statement also applied to the National Center. And both field and National Center capability for professional COMINT work has improved since then and is continuing to improve. The National Center assists the field in this respect by providing technical support.

Technical support is cheap since it's a by-product of our operations. We are like the manufacturer who has found a market for his by-products. We, too, have reached the point where our by-product represents economic gain, paying dividends in the field.

Another important cornerstone had to be laid before a program for decentralization of processing could be approached. This was to find a flexible method for the decentralization of intercept control. Today we know this as Circular 51-10.

So, to summarize the first period, we had (1) the promulgation of Operations Orders, (2) a build-up of field competency, and (3) the institution of a system permitting decentralization of intercept control.

The second phase of the decentralization program saw the evolution of the basic concept and policies for decentralization. We will consider these in a few moments.

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This period also saw the decentralization to field responsibility of problems involving some 12 COMINT entities. The first COMINT entities decentralized were [redacted] with ASAE assuming responsibilities in January 1954. Others followed throughout the year. Most of these problems were those for which the field center already possessed adequate capability. All told, a total of 15 COMINT entities are involved in decentralization today. These require the employment of approximately 160 Traffic Analysts, 25 Cryptanalysts and 110 Linguists. These figures do not include non-specialist personnel.

By the end of 1954, a total of 119 persons at the National Center had been diverted to other tasks as a result of problems decentralized to that time. The January communications changes, however, have reduced this figure to a considerable extent. We hope this reduction is only for a temporary period.

We have now entered the ~~third~~ phase of the Decentralization Program which I will call the Period of Planned Decentralization.

As you know, we have recently promulgated a Decentralization Plan which covers a period of two years. The purpose of this Plan is to provide advance data and information to the Services for planning purposes. We have signified our intention of decentralizing specified COMINT problems to specified field units at specified times and we have set forth the minimum numbers of specialist personnel required. These total some 650 people.

Planning for decentralization is difficult. It is difficult because we do not control the plans of foreign countries, nor their communications procedures, nor the progress of their cryptographers. This fact has a definite affect on the plans for, and progress of, decentralization. Communications which are highly exploitable for COMINT purposes today may be less exploitable tomorrow. For this reason, it is essential that the system of decentralization be flexible in order to meet changing conditions. This flexibility is difficult to achieve, and may, at times, have a disruptive influence on COMINT operations in the field. The problem must be recognized, however, and its consequences accepted if decentralization is to succeed.

The Decentralization Plan, too, must be considered subject to change.

Shortly after the Plan was completed, changes occurred in Russian and Chinese communications. These changes may affect the decentralizations planned. Another factor is the readjustments of effort taking place in the Far East as a result of Formosa.

The Decentralization Plan is subordinate to current operations, and when all the dust settles, changes may be required in the Plan.

In order to keep the Plan as current as possible, we will review and reissue the Plan semi-annually, adjusting entries for the reasons I've mentioned.

The present Decentralization Plan is a "Model A," so to speak. We will have an opportunity to discuss details of this Plan with you at the regional round-table sessions scheduled on the agenda for later this morning.

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Let us now take up the matter of policies and procedures governing the Decentralization program. A Circular will be available in the near future which will set forth in more detail what I am about to present.

What will be decentralized?

Certain criteria have been established which govern the selection of COMINT entities and problems for decentralization. Time does not permit me to go into these in detail but I will mention some of the criteria briefly:

- (1) That a requirement for the end-product is included among the EEI's of the commands you support.
- (2) That your unit can prepare the end-product as efficiently, and as fast, or faster, than the National Center.
- (3) That your unit has the capability for complete assumption of the task sufficient to meet the minimum requirements of the field commands you support and of the Washington consumers, as well as the standards for continuity and accuracy prescribed by the National Center.
- (4) That we can make available to you, all, or almost all of the raw material required for the reporting mission.
- (5) That all security factors as set forth in UKUSA agreements have been met, and that the techniques, material or equipment required are not of a nature considered too sensitive for forward exploitation.

Further, normally only COMINT problems of foreign military or paramilitary organizations will be considered for decentralization. This does not mean that non-military communications will never be decentralized because there are non-military communications which pass information of a military nature. For example, certain communications

Normally, no COMINT problems of a purely research nature will be decentralized. For example, one time pad systems, systems involving rare languages. Key analysis problems, analysis of communications such as [redacted] and initial diagnosis of unknown systems. The National Center will work problems of this nature and will forward results of such research to the field for decentralized reporting missions. This is not to say that the field will not engage in research of simple hand-ciphers, of code and Key recovery of certain systems, or in analysis of simple callsign systems, frequency rota systems and the like.

The type of research to be conducted in the field will be that which contributes to the decentralized reporting mission and will be as determined and specified by the National Center in advance.

Let me expand on this question of field capability.

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Normally, we expect your unit to display a capability for assumption of any decentralized reporting mission from within your Service resources. However, if the assignment of technicians from the National Center to you on a TDY basis will raise your capability to an acceptable level, such assignment will be considered the rule rather than the exception, and the COMINT problems will be decentralized.

We realize there are many factors, over which there is little control, which may affect your capability. Factors such as rotation of personnel, and the long period required to train an analyst. For this reason, skilled technicians from the National Center or from one of the other Services will also be assigned on a TDY basis, as necessary to maintain capability on problems already decentralized during critical periods of personnel rotation. We ask you to keep us advised of your needs for assistance.

What operations does the National Center conduct with decentralized entities?

Decentralization of a reporting mission does not mean we cease all effort with the COMINT entity at the National Center. We have a continuing responsibility for all required long term reporting and other research. We also have a responsibility for maintaining continuity of the COMINT problems concerned for technical control and support programs. The latter responsibility requires that the National Center be provided a copy of the same raw material or semi-processed material you utilize. It will result, however, in reduced requirements for the forwarding of such material by electrical means.

When your unit assumes decentralized responsibilities, the amount and nature of technical support provided you will change. Since you have the capability for taking over decentralized reporting, obviously you will not require the same degree of technical support.

What is the role of the NSA Field Activities under decentralization?

The NSA Field Activities will exercise a stewardship function over decentralized problems. They will be responsible for insuring that an adequate level of capability exists in the field at all times. They will assist you in taking immediate emergency actions, should any difficulties arise. They will also facilitate the temporary assignment of specialist personnel to field units.

What happens when a decentralized COMINT problem changes in nature or in scope?

At the outset, probably an increase in the flow of technical support from the National Center to your unit. If the change cannot be resolved in due course and the problem has essentially become a research task, arrangements will be made to return responsibility for the problem to the National Center.

This leads us into another important facet of the concept of decentralization -- JOINT RESPONSIBILITY or JOINT OPERATION. This term is new but the situation it covers is not, for this is precisely the status of all non-decentralized COMINT entities worked in the field today. The National Center and the field are both conducting reporting on the same COMINT problems. Why? Because the criteria for decentralization are not yet met. For example: Your unit may not yet have the capability of the personnel to take over the problems on a decentralized basis, (or) We

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cannot make all the raw or semi-processed material available to your unit, (or) Sensitive cryptanalytic techniques or equipment are utilized to work the problems (or) Exploitability of the problem is sporadic.

JOINT OPERATION describes an element of the "flexibility" we desire to achieve in decentralized operations. For example, you have a timely reporting mission on a decentralized basis, but suddenly, changes occur which necessitate that the National Center assist in reestablishing the exploitability of the entity. The problems then become worked on a JOINT OPERATION basis. It is no longer unique field reporting, both National Center and the field conduct similar operations with the same COMINT entity.

The degree of duplication under Joint Operation may vary.

- (1) We may have complete, or almost complete, duplication until full decentralization takes place.
- (2) We may have complete or partial duplication to recover exploitability of problems within the entity which have undergone changes.
- (3) We may have little or no duplication on a Joint Operation basis because it is possible to arrange a division of effort between the field and the National Center based on such factors as: responsibility for certain casebook numbers (or) cryptographic systems (or) sources of traffic or any other identifiable elements.

We must bear in mind that insofar as problems of an area or theatre nature are concerned, COMINT activity conducted on a Joint Operation basis is interim in nature. The goal is decentralization, and as I mentioned earlier, decentralization is not a dismemberment of production and reporting -- it is really a sharing of responsibility.

To summarize, there are only three major differences between COMINT operations which are decentralized and those in a Joint Operation Status.

How are problems decentralized? I refer here to the paperwork and procedures. The instrument through which decentralization is accomplished is the Operations Order Annex. Each of these directives spells out in detail the exact responsibilities being delegated to the field unit. These normally include: responsibility for intercept control, TEXTA responsibility, and responsibility for the production of specific, timely end-product and technical reports.

These directives are prepared in close coordination with technicians at the National Center who are working with the COMINT problems being decentralized. The Annexes are coordinated with the Service and are implemented through the Service Cryptologic Agency headquarters.

Annexes will also be promulgated for tasks performed on a Joint Operations basis.

When your unit assumes responsibility for a decentralized COMINT processing and reporting task, you enter into a special relationship with the National Center and with all consumers who receive your product. This includes the so-called Washington consumers: State Department, CIA, Department of the Army, Department of the Navy and Department of the Air Force. The COMINT you produce may be received by

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Mr. Dulles (either or both of the Messrs Dulles), perhaps even by the President of the United States. You have been certified as capable of producing accurate COMINT. We do not delay dissemination of this COMINT in order to check it, or to republish it. We all look up to you as the experts on the decentralized problems. You have the responsibility for the entire National COMINT establishment for those COMINT problems decentralized to you.

Gentlemen, this concludes the presentation on decentralization. I realize this has been a great deal to set forth to you in some half hour's time. I'm sure many of you have questions which we will attempt to answer.

Thank you all for your kind attention.

## 2. Question and Answer Period:

a. Col. Pulling, NSAUK, questioned the phrase "reporting as determined and specified in advance" and said he thought some reporting could not be specified and determined in advance. Mr. Gietkowski replied that when using that phrase he was referring to those types of reports set forth in the operations order annexes.

b. Captain Enderlin, COM, asked for further clarification of the statement "decentralization of some problems to the field would result in reduction in the amount of electrical forwarding necessary." Answer: What was meant was electrical forwarding between the National Center and field units, not between field units and field processing headquarters.

c. A query was raised concerning "decentralization on a training basis." Answer: The proper term is "joint operation." From the time a field unit puts one person on any given problem it automatically becomes a joint operation between the National Center and the field unit.

d. General Canine, at that point, asked to say a few words. He said that we must make the decentralization program work. He stated that he believes in it, and we must get the qualified personnel in the field who can do it. The Director then said he had a word of warning. He periodically receives part of the output of NSA, and is reluctant to note that sometimes efficiency is measured in terms of square feet of paper, in groups per day, or any other "absurd yardstick". The Director stated it is amateurism to determine how well we do our job by the volume we produce. He said we must not measure our success by bringing in someone and showing him the amount of dots on a board. He concluded his remarks with "Let's get down to ounces!" - - - with the implication that we should depend more on quality and less on quantity.

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EO 3.3(h) (2)

- A. TOPIC NUMBER: 1
- B. TOPIC NAME: DECENTRALIZATION: PACIFIC AND FAR EASTERN AREAS
- C. TYPE OF SESSION: ROUND-TABLE DISCUSSION
- D. CHAIRMAN: HENRY J. HERCZOG, CHIEF, FIELD OPERATIONS DIRECTION GROUP
- E. HIGHLIGHTS:

1. Discussion centered around the NSA two-year decentralization plan for the Far East area. The views of the overseas commanders were solicited with respect to the specific problems scheduled to be decentralized to their respective headquarters. In general, there was agreement on the problems which have been selected for decentralization and on the deadlines which have been set for each problem. The comments made by the overseas commanders were considered informal and unofficial; the official views of the three Service Cryptologic Agencies concerning the two-year plan have been made known to NSA through official correspondence.

2. Separate meetings were scheduled for later in the Conference week to discuss the following three specific matters raised during this session:

a. Lt. Col. Mize, Chief, ASA Alaska requested that certain changes be made in the plan for decentralization to his headquarters of the [redacted]

[redacted] These changes, which concerned the scope of the ASA Alaska effort, and the possible advancement of the date for decentralization of the above problem were discussed at a later meeting held by representatives of ASA Alaska, ASA Field Units Branch (GAS-53), Traffic Analysis Support Division (NSA-94), Special Division (NSA-72), and Field Operations Direction Group (NSA-063). A memorandum for the record containing the results of that meeting will be circulated to all concerned.

b. LCDR Thomson, OIC, USN-27 stated that communications between USN-27 and USN-39 would have to be improved before USN-27 could assume all of its scheduled decentralized tasks. This question was satisfactorily resolved at a special meeting held on 1 April. The Economic Division (NSA-75) has prepared a report of that meeting for distribution to all concerned.

c. Colonel Weeks, Commander, 6920th Security Wing indicated that in his opinion the 6920th Security Wing could assume more decentralized missions than were included in the two-year plan. It was agreed that his views on the subject would be the basis for additional discussion during the week.

F. SPECIFIC PROBLEMS RAISED:

1. The discussion led to the problem of the timeliness in the receipt of non-U.S. intercept. In particular, the delays in receipt of the traffic [redacted]

2. Captain Wright, Chief, NSA Pacific, stated that CINCPACFLT would like more timely "term" reporting. The monthly report on the [redacted] produced by the National Center is, in particular, a case where more timely reporting is required.

3. Discussion took place on the question of TEXTA responsibility. It was proposed, and the consensus appeared to support, that TEXTA responsibility for all decentralized tasks be retained at the National Center, with the field relying on TEXIN to satisfy local requirements. In this way, the field could satisfy local requirement for rapid exchange of targets data, while the National Center could back the field with comprehensive, all source, authoritative data.

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## G. RECOMMENDATIONS

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1. That NSA examine the current situation with respect to the delivery of [redacted] material with a view to increasing the timeliness thereof. (It is understood that certain actions along these lines have already been taken.)

2. That the Office of Exploitation (NSA-90), the Naval Security Group and the Field Operations Direction Group (NSA-063) explore the possibility of tasking USN-27 and USN-39 with increased weekly and monthly reporting responsibilities on the [redacted]

3. That all interested elements of NSA, at the initiative of the Field Operations Direction Group (NSA-063), examine the proposal relative to TEXTA handling (paragraph F.3, above).

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~~TOP SECRET EIDER~~MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER: 1
- B. TOPIC NAME: DECENTRALIZATION: EUROPEAN AREA
- C. TYPE OF SESSION: ROUND-TABLE DISCUSSION
- D. CHAIRMAN: MR. E. T. GIETKOWSKI, CHIEF, OPERATIONAL CONTROL SECTION,  
FIELD OPERATIONS DIRECTION GROUP
- E. HIGHLIGHTS:

1. The NSA two-year decentralization plan for the European area was the subject of the discussion. Those present were invited to make any comments regarding the plan. The comments made by the field commanders were considered unofficial in nature since the official views of the Services concerning the plan are being forwarded to NSA through official correspondence.

2. Lt. Col. Horton, USA, ASAE asked whether ASAE could rely on schedules contained in the plan. Reference was to non-counterpart problems now worked by ASAE and scheduled for Navy and Air Force units. The Chairman indicated that some of the Air Force items would probably be rescheduled to conform to availability of AFSS Satellite linguists and cryptanalytic personnel, but that the Navy items were firm. Lt. Col. Horton further inquired as to procedures for initiating work on new problems. The ensuing discussion brought out that consumer EEIs should be a guide to priorities of any new processing undertaken, that the NSA Field Activity should be informed, and that NSA would provide guidance where priorities might be equal.

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3. LCDR Nicholson questioned the need for decentralizing minor problems such as

4. Colonel Clark, USAF, 6900th Security Wing, asked what should be done when a consumer does not want a COMINT report (reference was to Squadron SITREPS), and preferred a report prepared at Group level, even though it might be 24 hours later. Mr. Clark, NSAEUR, stated that a much greater education of intelligence consumers is required since they generally don't know what they want in terms of periodicity.

5. Colonel Peterson, USA, ASAE, expressed his belief that it was none of NSA's business what reports the field produced as long as they met consumer requirements. NSA should establish the type of report and not tell the field to stop reporting if the consumer requested such a report. NSA should not stifle field initiative. NSA representatives indicated that it is the aim to give the field responsibility for timely reporting and that term reporting is NSA's job. If after adequate timely reporting is being accomplished by the field and they have the time and capability for doing more, the problem of additional reporting would be considered. It was pointed out that the field should keep NSA informed of any long-term reporting they may undertake in order that there not be a duplication of effort.

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F. PROBLEMS RAISED:

It appears that there is a need for each field processing center to know where, in terms of priorities, each decentralized problem stands with respect to all other problems worked at the field center

G. RECOMMENDATIONS:

1. That NSA re-examine the Squardon Direct Reporting program.
2. That NSA provide guidance, or evolve a system, which will contribute to the solution of the "processing priorities" problems mentioned in F, above.
3. That NSA consider the establishment of a Joint Service Field processing center in Europe for Satellite problems.

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~~TOP SECRET EIDER~~MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER: 2
- B. TOPIC NAME: CATEGORIZATION OF COMINT: PURPOSES, STATUS, INTERPRETATIONS
- C. TYPE OF SESSION: GENERAL MEETING
- D. CHAIRMAN: MR. JOHN J. CONNELLY, JR., DEPUTY CHIEF, FIELD OPERATIONS DIRECTION GROUP
- E. PRESENTATION:

The following presentation was made by Mr. Milton S. Zaslow, Chief, Current Operations, Plans and Control Group:

Distinguished guests, ladies and gentlemen:

As you are, I am sure, aware, the categorization of COMINT went into effect on 1 January 1955. I should like to discuss some of our mutual problems in regard to this, but first I think you would be interested in knowing as much as possible of the background of this action - - why and how it got started. The story goes something like this:

At least as early as 1951, senior people in the COMINT business met to discuss ways to achieving greater security. They were all concerned that the "need to know" principle was supported by many but followed by few, that increasingly large amounts of paper were being passed around, and all with our highest classification - - TOP SECRET CODEWORD. They felt that we were perhaps trying to give maximum protection to too much. It was their feeling that we should isolate that COMINT which was really the most sensitive and guard it best, and put the rest of the COMINT in effectively protected categories of lower classification to which there would be wider access. Discussions continued, and a new concept then appeared. There were some who felt that plain text material - particularly Russian plain text - was not nearly as sensitive as traffic analytic or cryptanalytic results, and not only could our dissemination standards be relaxed but we could employ processing people who might ordinarily not be clearable for COMINT - - primarily people with foreign backgrounds. They argued that the nature of the information from Russian plain text was such that its processing required not only complete familiarity with the language, but excellent knowledge of some scientific, political or economic field. For this purpose, they maintained, specialized persons of foreign background were necessary. While there was some agreement in principle, there were so many different points of view that a clean-cut decision was never really made. Against this backdrop, in 1953 representatives of USCIB met with their British counterparts and worked on this problem of the principles of security and dissemination. In general, it may be said that the impetus behind this re-appraisal of our security procedures came from the American side, with the British much less enthusiastic for the kind of changes we had proposed. Finally, after a long series of drafts, redrafts and compromises, the two groups agreed to a paper which we now know as the latest revision of Appendix B of the UKUSA agreement.

It is in Appendix B that we find the legislative basis for categorization. Incidentally, the same sort of exercise was carried out with Canada. The essential point here is that regardless of who originally sponsored any particular aspect of categorization, every member of USCIB played a part in its drafting and voted for it. This included the Army, Navy, Air Force, NSA, Secretary of Defense, FBI, State and CIA.

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As approved, Appendix B dealt with the two basic issues that started the revision of the security appendix in the first place, but not in the way their proponents had anticipated. We find that:

1. The proposal that we give maximum protection to only the most sensitive material was met by placing, in the main, results of all crypt-analysis, the most important traffic analysis and even some plain text in the highest category, and
2. The proposal that we relax both distribution and clearance standards for Russian plain text was met by placing it within the category of highest sensitivity. USCIB also declared that standards for clearing persons for the least sensitive codeword material and most sensitive were identical.

Based upon this policy, the implementing order on Categorization (which you know as Circular 50-7) was issued. It describes, in language lifted virtually unchanged from the Board papers, what we now have with Categorization. Briefly stated, there are three categories and two sub-categories. Category III contains that COMINT, the protection of which is the over-riding consideration. It is TOP SECRET CODEWORD. In this category we find all cryptanalysis except for operator codes and similar systems, most T/A "fusion" material and any plain text or other material which is of particularly high value or sensitivity. Within this category there are two sub-categories, each considered less sensitive than Category III but more sensitive than Category II. One is for Special Weather material and the other is for [redacted] Next is Category II which is classified SECRET CODEWORD. Here we find some low-grade crypt materials, most traffic analysis and plain text, [redacted] codes, and RFP and MOA results. Last we have Category I which is rather a recent idea. This is COMINT without a codeword and may be classified CONFIDENTIAL, SECRET, or TOP SECRET. (There has been some confusion on this point. Some people were under the impression that all Category I was CONFIDENTIAL. This is not so.) This category was established to permit greater operational use of tactical COMINT. Right now, Category I includes [redacted]

[redacted] and simple T/A relating to D/F mission assignments, bearing reports and fix reports involving no interpretation of complex changing callsign systems.

You may wonder why it is necessary to spell out the contents of each category in such great detail (down to crypt system short titles), and why none of you is authorized to take any action in Categorization. It must be clearly understood that the procedures have been laid down by USCIB and NSA is only its agent in this matter. First of all, almost all Categorization actions must be taken twice. In order to place a crypt system in Category II, for instance, it must first be declared "suitable" for assignment and, subsequent to that, the actual assignment can be made. In addition, a definite series of steps must be taken for each Categorization action, and I should like to explain them so that you will understand why we cannot expect immediate results. When any responsible COMINT production unit, either at NSA or the field, encounters a situation which they believe requires Categorization action, they must immediately notify the Technical Director. The Technical Director has been designated as the single individual to make the basic determination on Categorization because we believe them to be matters of the most mature technical assessment, and these decisions involve not only evaluation of COMINT production developments to determine proper classification levels, but affect assignment of personnel and deployment of COMINT activities. Once he has made his determination, NSA is required to consult with representatives of each of the USCIB member departments and agencies. (Ordinarily this is done

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with their people resident at Arlington Hall.) Following this consultation, NSA must then cable the British (and in some cases, the Canadians) for their concurrence in assignment to the "suitable" list. If they do not agree, everything stops. (This has not happened yet and we don't anticipate that it will). Once the British (and this means GCHQ) concur, then NSA must get the formal concurrence of each of the USCIB member departments and agencies before it can make the assignment. Here, too, if any one does not concur, no action can be taken. If there is unanimous agreement, however, then NSA can make the necessary notifications to all units and only then can any action be taken. Not only must these steps be taken when a new system appears, but also every time there is any permutation of that system. This situation arises because Categorization actions are tied to specific short titles of cryptographic systems, and cryptographic changes are always indicated by new short title notations. The effect of this program is that whenever a cryptosystem which has been formally assigned to Category II (and therefore published as SECRET CODEWORD) undergoes this sort of change, it must be treated as an entirely new system and therefore automatically upgraded to Category III (TOP SECRET CODEWORD). It must remain in this most sensitive category throughout the period that all the steps in the entire categorization procedure are retraced, and because this involves the many concurrences which have been described, this period is of unpredictable duration. We believe that this is questionable arrangement for at least two reasons:

- a. It negates the stated aim of Appendix B which is that a system once downgraded may not effectively be upgraded, and
- b. It would automatically deprive any COMINT user who was authorized to receive only Category II COMINT of this information during the recategorization process. If the cryptographic change occurred prior to or during an emergency, he would be deprived of COMINT when he most needed it. In order to insure an uninterrupted flow of information to COMINT recipients, we are recommending to USCIB that it affirm that the Director, NSA may assign a cryptosystem to the same category assigned to the system which it succeeds, when he determines that it has not undergone any change which affects the level of cryptanalytic sophistication or any other criteria normally applied to assignment of COMINT to categories.

There are other aspects which are of interest. For instance, (1) Both Special Weather COMINT and [redacted] COMINT are sub-categories of III. We understand that when materials of two classifications are used, the product must carry the higher classification. In the case of these sub-categories, however, there is no indication that one carries a higher classification than the other. What is the proper classification of a report containing TOP SECRET BASTE and TOP SECRET SAPPY? We are settling this on an ad hoc basis as it arises. (2) Another interesting situation which arises in Categorization concerns [redacted] which is of particularly high intelligence value is placed in a less sensitive sub-category of Category III, while any other plain text, passed on the same circuit and of high intelligence value for the same reason as the [redacted], is placed in the most secure Category (III), higher than the [redacted]. (3) Still another point of interest is that we may expect a single item to be issued in two categories simultaneously. For example, if the same Category II plain text item is processed by NSA or GCHQ and a field unit, it is possible that opinions may vary as to its high intelligence content, and one of the three units may issue it as Category III, while the others may retain it in Category II. (4) Or, material from a particular system may be intercepted and consistently issued in Category II as SECRET CODEWORD. A single message or group of messages in this system may then be acquired in an operation classified TOP SECRET. These new messages would have to be Category III (TOP SECRET CODEWORD) because of the source classification. (5) Still another situation - - as the Categorization

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directive is written, it is possible to place a Category II [ ] in the highest category because of intelligence value, but impossible to do the same with crypt or T/A material.

I cite these to indicate that as it is presently operating, Categorization has yet to fulfill its expressed intent, which is to enable the designation of recipients by categories. It can easily be seen that except for the most restricted circumstances, anyone who required COMINT could not effectively depend upon only one category to supply his needs. It is doubtful that a Corps Commander, for example, could be satisfactorily serviced with only Category II COMINT. There is reason to believe that the users of COMINT are now aware of this. We have not been informed that there are any recipients who can receive only one codeword category.

For the same reasons, compartmentation of COMINT production facilities along these lines would in many cases decrease our potential to produce the best and most current COMINT. The distinctions which place COMINT into certain categories are not necessarily meaningful in the processing effort. It can thus be seen that Categorization, a plan essentially devised for the convenience of the users, has yet to be applied by them, and that its major burden is placed on the producers who do not require it. I believe that we must weigh the cost of Categorization against the advantages it gives the COMINT community, and base future action on the results of that assessment. We may find that between Category II and III, we have a distinction but not a difference.

Nevertheless, so long as it is in force, we must do everything in our power to make categorization work.

One very desirable aspect of the Categorization scheme is the use of Category I, and I should like to discuss that for a moment. We all are familiar with the long standing dilemma between security and effective use of COMINT. By the device of Category I, we now have a mechanism for more widespread operational use of certain tactical materials, which could give direct assistance to people who have an unmistakable need to know, but who should not or need not be Codeword cleared and indoctrinated. We are all familiar with the highly successful Air Force COMINT GCI operation in direct support of U.S. fighters in the Korean war. Not only is there authorization for this operation if circumstances require it, but because of the Formosa crisis similar authorization has already been given for this type of information to be passed in the East China area, and this has been done. Category I is given the same handling as intelligence materials of the same classification, and attention must be given to its proper classification. Although it may be issued as CONFIDENTIAL, this is not the only classification. For example, if the Army classified its CISD operation in Germany at the SECRET level, then no Category I COMINT from that operation may be classified lower than SECRET. Moreover, individual items produced which are particularly sensitive and are similar to other intelligence materials classified TOP SECRET, should properly be issued as TOP SECRET. In general, classification of all Category I material should follow that of non-COMINT intelligence materials of the same type. Wherever a need arises for this type of information (and it is within our capabilities to supply it), we will of course do everything to make COMINT as useful as possible. But there are certain cautions which must be considered. Never forget that this carries no codeword and recipients of this category only must not be indoctrinated. In addition, there are certain provisions for disguise of this material. Strictly speaking, this does not directly concern the COMINT producer in that normally his recipients are codeword cleared. However, if Category I is to be used effectively in fast-moving situations, it is obvious that COMINT producers can assist the intelligence people by issuing their Category I material in such a way that it can be used properly, and at once. For instance, every effort must be made to prevent transmission of Category I COMINT in a manner susceptible to interception unless it is disguised as operational instructions. Yet

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once it leaves the COMINT producer, there is no way of insuring that this provision can be effectively enforced. This requires coordination between the producer and the user; and it is essential that this be done whenever we anticipate a Category I situation to develop. We have asked our Field Activity Chiefs to look into this problem, and we are greatly interested in any plans for possible future use of Category I.

One last point. We have discovered that 90% of all so-called questions of Categorization are actually straight-forward questions of classification. While we can equate any category to a single classification, they are not the same thing. It must be remembered that the codeword is not a classification but merely a source designator. Moreover, the most important line to be drawn in COMINT is not between codewords but between all codeword COMINT (Category III and II) and COMINT without a codeword (Category I). When problems of Categorization arise, we will be glad to give whatever assistance we can.

With the exception of the introduction of Category I, and the Russian plain text sub-category, things are really not much different from what they were last year. But we recognize that problems do exist. We want to know what they are. Some we can solve ourselves. As for others, we want to bring those to USCIB and get the necessary changes approved. We would like your comments at any time.

This is the end of my prepared talk, and I think we can probably cover quite a bit of ground in the question period. Thank you for your attention.

#### F. DISCUSSION:

Mr. Zaslow's presentation was followed by a question and answer period in which several of the salient points in his presentation were discussed and amplified. No particular recommendations were developed but it was evident that the program, as expected, had not been completely understood by all concerned. The presentation and discussion served to remove some of misunderstandings which had previously existed. The fact that several of the features of the program are still under study and review within the USCIB structure was also communicated to the group.

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- A. TOPIC NUMBER: 3
- B. TOPIC NAME: "ALERT" PROCEDURES
- C. TYPE OF SESSION: GENERAL MEETING
- D. CHAIRMAN: MR. JOHN J. CONNELLY, JR., DEPUTY CHIEF, FIELD OPERATIONS DIRECTION GROUP
- E. PRESENTATION:

The following presentation was made by CDR George P. McGinnis, USN, Chief, Technical Control Section, Field Operations Direction Group:

The subject of the discussion this morning is Alert Procedures. First, let me define an alert- in its narrowest sense, an alert is a continuation of existing procedures but at an accelerated rate. That is to say, during an alert, we continue doing everything we normally do, or are authorized to do, in the intercept and reporting fields, but we do them much more rapidly.

Several people have asked, "Why must the National COMINT establishment have alerts?" The answer is simple, "to provide early warning COMINT information to everybody involved in the defense of the Nation, whether this be a Field Commander or the National Security Council. As an example: General Canine has stated, "One of the primary missions of the National COMINT establishment is support to CONAD." Now, as most of you are aware, CONAD - the Continental Air Defense Command - a joint command, by the way, is charged with the Air Defense of the U. S. In addition, CONAD has a collateral duty of supporting the Strategic Air Command, for the simple reason that it requires up to six hours for SAC to get its bombers airborne, and during this period, they are highly vulnerable to air attack.

This, then, is one of the main reasons for reporting alert conditions, but in addition, provision for notification of all interested consumers, and foreign collaborating Agencies has been included.

The COMINT Alert System has done more than any other one thing to highlight the National character of the COMINT effort.

The original COMINT Alert Circular, Number 53-2, was published in March 1954, although interim instructions had been issued by message almost a year earlier.

The COMINT Alert Circular received its first "bath of fire" when the SAC-ADC exercise, called CHECKPOINT, was conducted in July 1954. This exercise involved a group of SAC bombers making simulated bombing runs on the U.S. It was anticipated that there might be a Soviet communications reaction to this exercise and for this reason a large number of COMINT units were directed to declare an alert and report on any Soviet reactions noted.

As a result of this exercise, much was learned about our alert capabilities, but more particularly, much was learned about the deficiencies of our alert procedures. It was then decided that an NSA committee should be formed for the following purposes:

- a. Review all alerts and provide feed-back type information to the units involved when it was evident that the unit required additional instruction.

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b. Provide the COMINT Establishment with advice on proper Alert Procedures. This committee, called the PROD Alert Committee, with representatives from the Office of Analysis, the Office of Exploitation, the Office of Collection, the Field Operations Direction Group, Plans and Control Group, and an observer from the Office of Communications, was established last July.

To date, 13 alerts involving about 80 COMINT units have been held under the terms of Circular 53-2, all of which have been analyzed by the Alert Committee. A total of 48 technical support documents, each containing many separate items, have been forwarded to the field by the Alert Committee. These documents each dealt with a specific alert, and contained instructional type information believed to be of value to some particular unit or units. This Alert technical support program has paid big dividends because with each succeeding alert, the number of technical errors committed by individual units has decreased to a marked degree.

In addition, the Alert Committee acted as a coordination body to assist the National Security Agency in rewriting Circular 53-2. This rewrite was completed recently, and the revised circular was published in February, 1955. This version corrected at least three major deficiencies noted in the earlier version, including the following:

First, the revised circular was distributed to all U. S. COMINT units whereas its predecessor went only to overseas processing units. We feel that it is of utmost importance that all COMINT units be permitted to declare alerts. I believe all of you will remember the tragic situation at Pearl Harbor where the lone radar operator detected the approaching Japanese aircraft, but was unable to pass the information to anyone who would take action on it. Is it not entirely possible that a lone D/F station on Kwajalein might intercept a plain language message which would advance information on enemy movements? The present circular provides the necessary authority, and prescribes the necessary actions, to permit this lone D/F station to alert the entire U. S. Defense establishment.

Second, an executive agent procedure was established in each area to permit a single COMINT unit to report an alert for that entire area, thus obviating the requirement that all three Services COMINT Units report on the alert. Under previous procedures, all three Services in each theater frequently went on alert and many of their reports were forwarded to the same addressees. This resulted in a large volume of messages from intercept stations of all three Services. Under the executive agent plan, after the initial alert declaration, the Chief of the NSA field activity decides which COMINT unit has primary cognizance of the alert and directs that unit to forward all reports on the alert. All other COMINT units in the area having any information concerning the alert, whether in the form of raw traffic or end-product, forward it to the executive agent. The net result has been a tremendous decrease in the number of reports generated by any one alert.

And third, COMINT units in one theater or area are not required to forward their alert reports to other theaters unless the other theater is involved in that alert. On this chart, you will see a typical theater COMINT arrangement. We have an Army, Navy, and Air Force COMINT unit and an Army, Navy and Air Force consumer. The COMINT units are connected electrically, the consumers are connected electrically and each COMINT unit is connected electrically with his consumer. This same arrangement is true of other theaters. Now let us assume that the Air Force unit in Theater A declares an alert. He notifies his consumer and the other two COMINT units who in turn notify their consumer. Under previous procedures, each COMINT unit would then address a message to COMINT units of his Service in other theaters, who in turn would advise their consumers, so that within each theater, we have traffic flowing in a sort of circle, and with traffic flowing between COMINT units of each service between theaters.

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The result was a tremendous volume of traffic, much of which is identical in text, flowing all over the world. Present procedures require that a unit declaring an alert not forward his alert declaration message to another theater unless the other theater is involved in the alert. For example, suppose a unit in the Far East declares an alert which it believes might involve units in Alaska. The unit would, of course, forward its alert messages to the Alaskan theater and the COMINT units in Alaska would declare an alert if necessary. Now let us assume, in the course of the alert, that the [ ] become involved. NSA might then decide that European units should be appraised of the situation and would forward them the necessary information, or direct them to declare an alert if necessary. NSA would, in addition, forward the initial alert declaration message and the final alert message to other theaters, for information, only, if necessary.

In addition to the three major items mentioned above, several minor difficulties were resolved in the current version of the circular, such as:

- a. Permitting flexibility in the precedence of reports.
- b. Not requiring negative reports.
- c. Designation of Intel and Tech series, rather than Series 1 and 2.

To illustrate the normal flow of alert traffic in NSA, let us refer to these charts. In the presentation on Decentralization this morning, it was stated that the entire National Defense establishment places a heavy reliance on COMINT to provide early warning information. Chart 2 has been prepared to indicate the routing of the initial declaration message and of the Intelligence report.

Chart 3 shows the routing of Tech (formerly called Series 2) reports.

NSA declares alerts for problems worked exclusively by this Agency. In case NSA does declare an alert, the reports generated would be the same as for alerts declared by a field unit, except that the Intel and Tech reports would be prepared and forwarded by NSA.

Chart 4 illustrates the alerts declared under Circular 53-2.

(Editors Note: Cdr McGinnis reviewed each of the above charts in detail. The charts are appended to this memorandum for the record.)

Well, so much for the present Alert Procedures -- now let us look at what the future may bring. During the past few months, we have received from field units, several worthwhile suggestions concerning alerts and many of them center around the items indicated on this chart.

(Editors Note: At this point, Cdr McGinnis discussed the possibility of transferring "B" and "Y" alerts from NSA Circular 53-2 to NSA Circulars 52-15 and 55-1, respectively.)

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## F. DISCUSSION:

CDR McGinnis presentation was followed by a question and answer period.

General approval was voiced concerning the alert procedures which have been established throughout the COMINT industry.

Some specific points of discussion follow:

Col. Weeks, 6920th Security Wing, recommended against any dismemberment of NSA Circular 53-2. (The possibility of transferring some features of Circular 53-2 to other circulars had been mentioned in the presentation.) Maj. Kellan, 6910th Security Group supported this recommendation.

LCDR Nicholson, Naval Security Group, strongly recommended against authorizing all stations to declare an alert. Rather LCDR Nicholson contended that any isolated station in possession of alert-type information should pass it up channels to be evaluated first. This recommendation is not acceptable to NSA since the built-in delays of such a procedure would defeat the purpose of the alert program.

General agreement was reached that some system of brevity addresses must be developed to reduce transmission delays. NSA had already been working on this problem and a solution is expected shortly.

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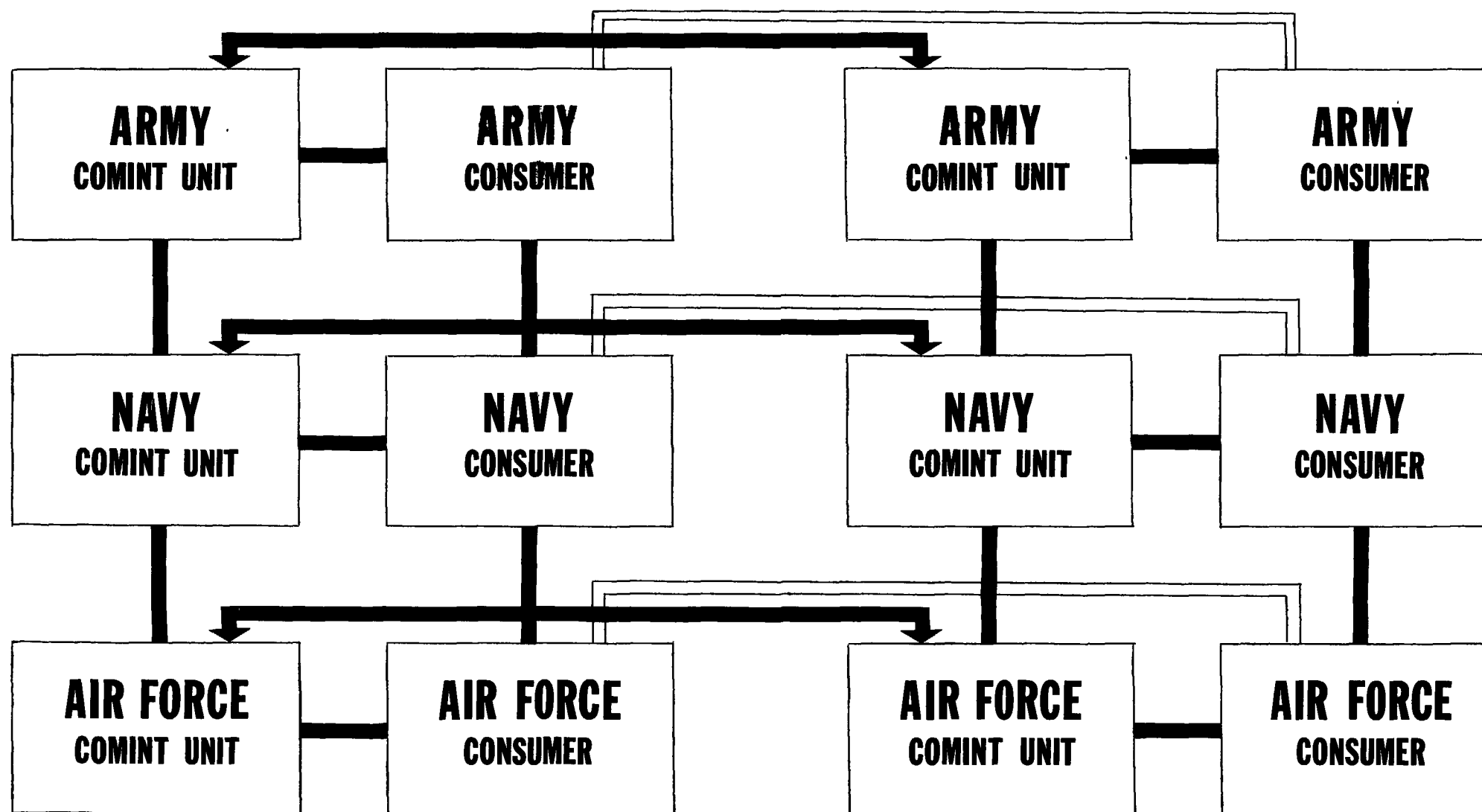
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# ALERT TRAFFIC FLOW INTER-THEATER

THEATRE A

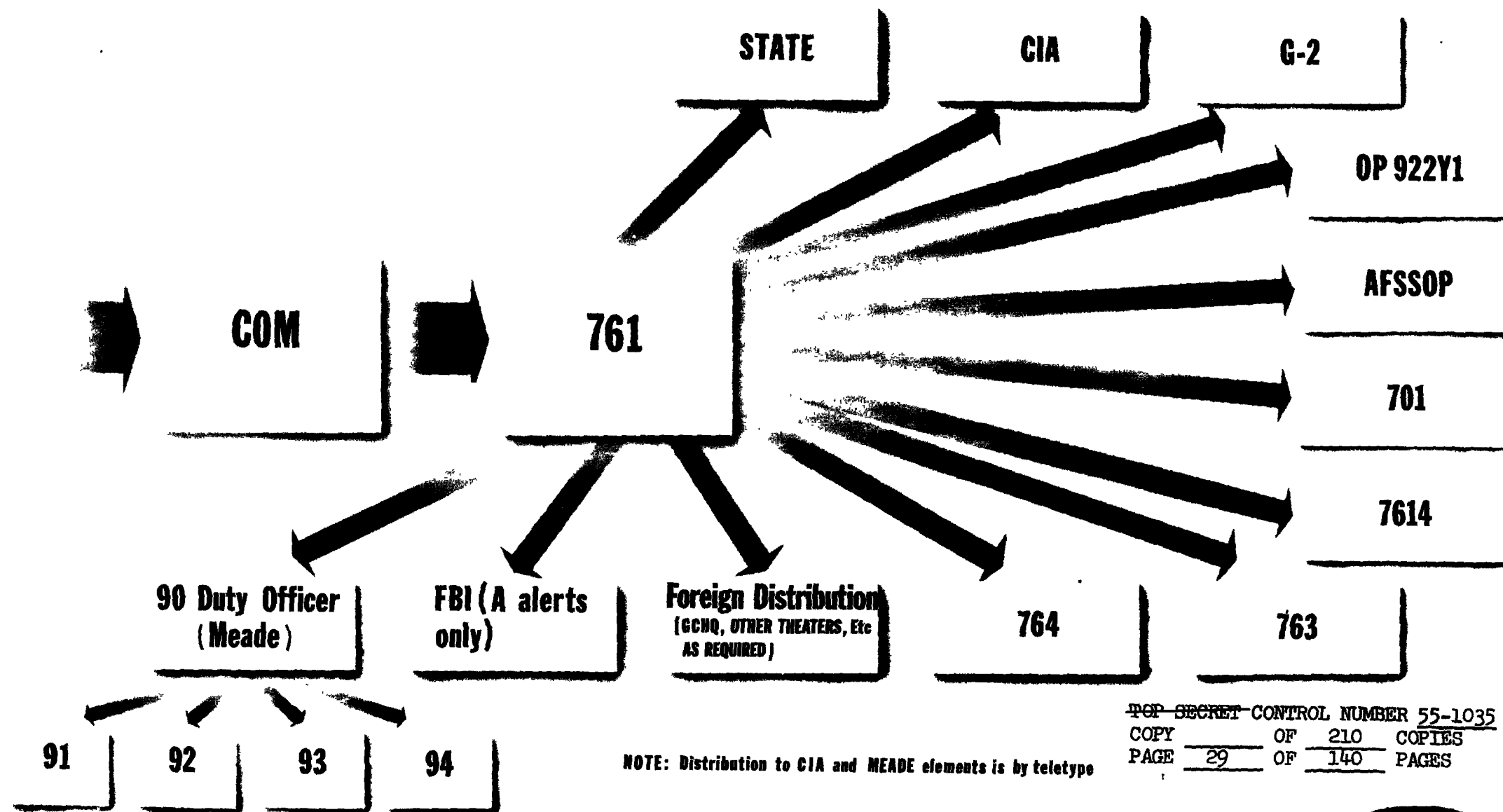
THEATRE B

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# ALERT FLOW WITHIN NSA

## INITIAL DECLARATION AND INTEL REPORTS



NOTE: Distribution to CIA and MEADE elements is by teletype

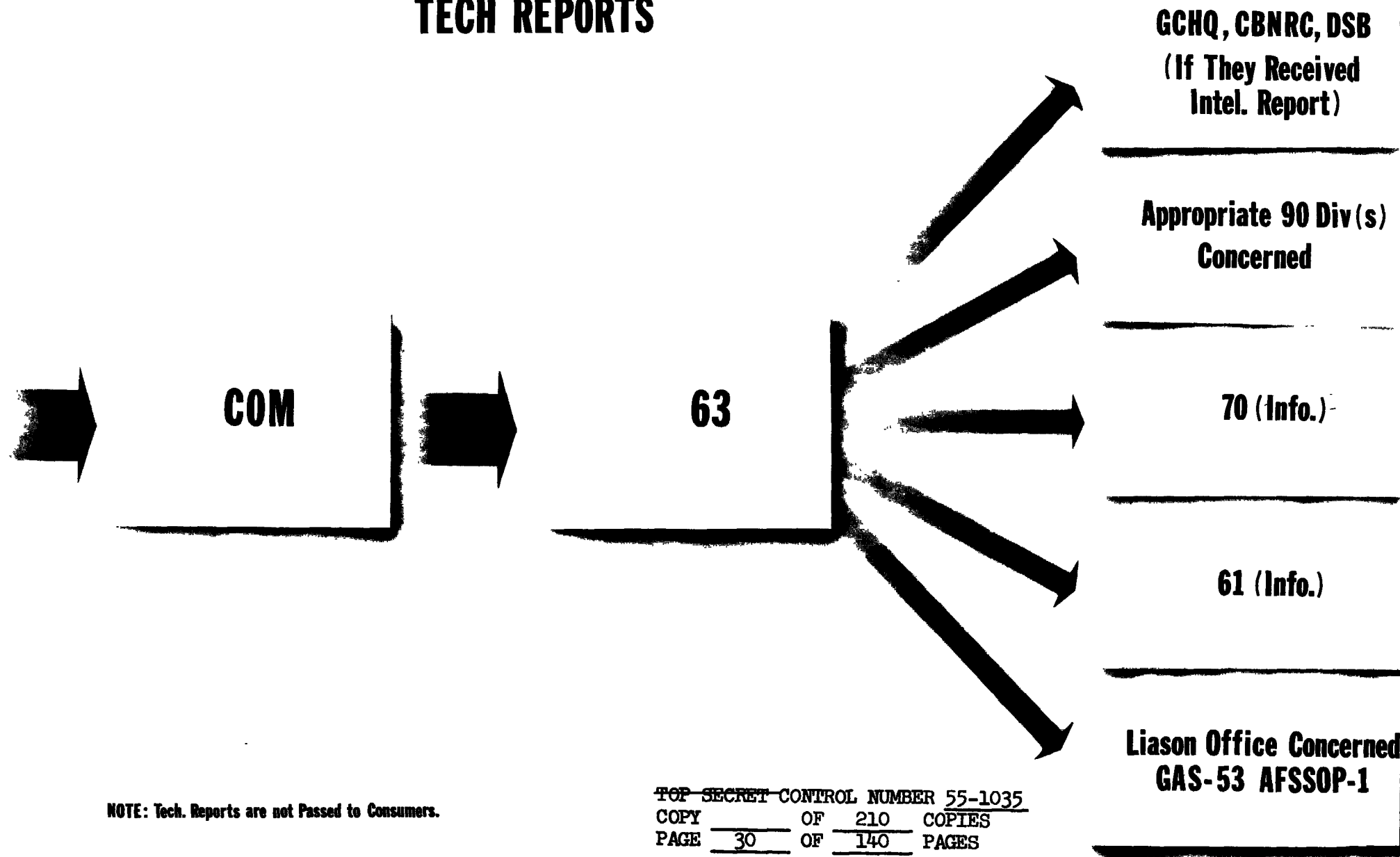
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# ALERT FLOW WITHIN NSA

## TECH REPORTS



NOTE: Tech. Reports are not Passed to Consumers.

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~~SECRET~~ PIVOT**ALERTS DECLARED UNDER CIRC 53-2 (BY TYPE)**

<b>ABLE 2</b>	6920th	27 Aug 54	ASAE 6910th	6 Sep 54 " " "
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<b>BAKER 5</b>	3rd RSM	31 Aug 54	ASAA	31 Dec 54
	USN-14	4 Nov 54	ASAE	" " "
	ASAFE	" " "	502 CRG	" " "
	USN-27	" " "	6910th	" " "
	USN-39	" " "	3rd RSM	3 Jan 55
	USM-3	" " "	501 CRG	13 Jan 55
6920th	" " "			

<b>X RAY 4</b>	USN-27	3 Sep 54	ASAFE	7 Nov 54
	USN-39	" " "	6920th	" " "
	ASAPAC	" " "	USN-27	18 Jan 55
	6920th	" " "	ASAFE	5 Feb 55
			6920th	" " "

<b>YOKE 2</b>	USN-27	6 Feb 55	USN-39	18 Aug 54
	ASAFE	" " "		
	6920th	" " "		

**TOTAL 13**

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- A. Topic No. 4
- B. COMINT Communications
- C. General Meeting
- D. Chairman, Col. John J. Davis, USA, Chief, Plans and Policy Division
- E. Highlights:

Presentation by Capt. Arthur Enderlin, USN  
Chief, Office of Communications

General Canine - Gentlemen - Good Morning

The COMINT Communication problem is never static. It changes with every success or failure of our processing efforts: With every shift of responsibility for a problem: and especially with every change in the nature of the target.

For these reasons it is never possible to anticipate our firm requirements for COMINT communications in a specific area very far in advance, although we can determine with fair accuracy what our total, or world wide, requirements will be.

Under these conditions we have to learn to roll with the punches: To adapt ourselves to changing conditions with a minimum of strain. Anyone who thinks he can make a neat plan and program it out through the next three years is either going to be disappointed or he will get ulcers, or both. So our planning must always be flexible.

We have nothing but subjective experience to guide us and to keep us from falling into pitfalls so deep we can't dig ourselves out. Even so, we will take plenty of pitfalls.

The essential ingredients of a reasonably smooth communication operation are therefore a great deal of experience and a great deal of resiliency, plus a determination to make it work.

Yesterday you heard the Director say that decentralization requires, first, faith in the decentralization concept; and second, people who can do the decentralized processing. I respectfully submit that there is a third essential ingredient to successful decentralization, and that is the ability to communicate the results of our faith and decentralized processing to the people who have to have this information right now.

There is no operational commander in the world who would be happy to learn that someone among us has information which is necessary to insure success of his operations, but which he can't have because of communication failures.

We can't lean back and be complacent about this. It is not sufficient for us to say or to think that communications is somebody else's problem. Maybe communications is somebody else's responsibility, but it is our problem, too, and we can't afford to sit back and let George do it.

When I look around at the tremendous network of communication facilities which the Armed Forces provide for themselves and for us, and compare it with the communication facilities which the professional communication people provide for commercial communication purposes, I cannot fail to observe that the technical material of the Services is superior both in advanced design and in quantity. Yet it is also a matter of frequent observation that we are not as successful in Service communication operations as the professionals. Why is this?

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I believe the answer lies in people. You, and I, and everybody else concerned with Service communications.

Your true professional communicator puts a little bit of himself into every message he handles. He knows what is happening to the message at every stage of its journey. He feels within himself the results of a technical or personal fault anywhere along the line. He understands the consequences of a delayed or garbled message, and feels a personal responsibility for its correct handling, not only in his own shop, but through every operation until it is delivered. But he is not born with these qualities - he acquires them through experience.

That is the Magic Word - EXPERIENCE.

In the Services we rely too often upon inexperience.

How often have I been told, in Service communication centers, that a certain individual is an expert, the man who keeps communications running, the indispensable man? And how often have I thought, after looking around a little bit, that what is said about him is unquestionably true in his own area of competence, but what is actually being revealed to me is that any show of assurance and competence takes on the aspect of superior ability and experience when viewed by those who are less experienced, including his superiors.

I do not intend that you should imply from these remarks that I hold Service communicators in contempt. On the contrary, there are as good communicators in the Services as out, and probably more of them. But how do we use them?

If you go into any commercial communication center of importance you will find that the supervisory personnel, the people who are dealing directly with message handling, are old timers of ten or twenty or thirty years experience. They don't feel it degrading to be handling messages after all that time - on the contrary they are highly respected members of their teams, and management listens carefully to what they have to say. These people handle messages for a living, and live to handle messages.

In the Services, however, as soon as anybody gets to be any good he gets kicked upstairs to shuffle papers and loses all direct touch with what is, after all, the only reasons for his existence - that is, the fast and accurate handling of communications for commanders. And commanders, who have the most to lose, too often do not realize this.

We have been trying to do something about this in this Agency. We used to have fresh caught second Lieutenants and Ensigns for communication watch officers. They were hard working and bright youngsters but they just didn't know. They believed anything anybody told them. We have succeeded in upgrading these jobs so that now they are filled by two strippers - Captains and Navy Lieutenants. It took some doing to convince them that they were not being downgraded, and maybe some of them aren't convinced yet, but by golly we do have a better background of general experience in those important supervisory jobs, and they are getting better educated every minute of every day, by both their subordinates and superiors.

My education continues, too. Every time I go to a field station or talk to other communicators about their problems I learn more. After 38 years in communications there is still a lot I don't know. One of my best teachers is the Director. He has his own ways of imparting knowledge - good ones, but not generally accepted in so-called progressive schools.

In a few words, then, our principle problem is people, and the solution lies with the commanders. The problem is so important that it warrants their most diligent and continuing personal interest.

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I do not imply that the problem is easy, or that under Service conditions it can ever be completely solved. I do believe that great improvement is possible, and I suggest that this problem can be attacked very much like you would attack an ice cream cone.

There really isn't any best place to take the first bite, so just bite into it anywhere. After that is carefully chewed and swallowed, each succeeding bite will just naturally fall into proper place. But don't try to swallow it whole - if you do you may get indigestion. And don't delay taking that first bite, either, or you may wind up with a sticky mess on your hands.

Commander Skinner will now tell you something about our plans for the future.

Presentation by CDR John A. Skinner, USN,  
Office of Communications

#### Planned World-Wide CCCC Program

It is my purpose this morning to give you a capsuled picture of the current program for the world-wide Centralized COMINT Communications Centers; the 4C's of which you have heard some rumblings and of which you will surely hear a great deal more.

At the outset it is advisable to review our requirements, in order to understand why we are embarking on a program which includes the construction of 6 4C's throughout the world at a total estimated cost of \$12 million dollars for switching and crypto equipment alone. If we briefly review the communications needs of the COMINT family, I think that our solution becomes more readily understood; in fact, obvious.

Our first requirement is to move an increasing volume of traffic, securely, by electrical means, back to NSA-Ft Meade, between and within the various threaters out to the various field stations to new theater processing centers (when established) and to points of exchange with other countries. The volume of the traffic is greater due to the increasing number of intercept positions, while the complexity of the traffic pattern is increasing markedly due to the decentralization program and the efforts to provide more and better close support to senior field commanders.

Our second requirement, which has been laid on by the Director, is the engineering of a communication system which will deliver intercepted material from the intercept site to the desks of one or more analysts in a matter of minutes.

How can we meet each of these requirements?

By off-line communications? This is a tried and tested system. Message texts are almost certainly secure. Tapes are perfect at the time of transmission from the originating station. However, off-line communications without traffic flow security is vulnerable to traffic analysis, but far worse from the communicator's point of view, are the built-in delays experienced in torn tape relay centers and the unconscionably high percentage of re-runs, a form of built-in traffic expander.

Perhaps we can meet these requirements by on-line communications when traffic flow security is available, this system is particularly secure from traffic analysis, but most especially when it works it provides instantaneous, plain-language to plain-language communication from point to point. Its well-known deficiency is the requirement that all components of the circuit must work and remain in absolute synchronism. If the radio circuits involved are poor or if the equipment not operating at reasonable efficiency, its availability for use may be limited.

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Thus it appears that no currently conceivable off-line system can possibly achieve the speed of communications which we require today. On-line communications must be made to work in spite of the disadvantages with which we are familiar. How can we do it?

1. By establishing on-line communications circuits over relatively short hauls between the intercept sites and the 4C's and between the processing centers and the 4C's.

2. By establishing on-line communications circuits by radio and cable over widely-diverse routes for the longer, more vulnerable, more heavily-used paths between the 4C's and NSA.

3. By instituting automatic switching in each of the 4C's which will reduce relay delays and provide full routing and handling flexibility.

How will the 4C's work? By the insertion of standard ACP headings in each message and by use of a start of message indicator and routing indicators, the switching equipment will perform, automatically, the relay functions previously performed by operators in torn-tape centers. The main features of the equipment for the 4C's will be:

1. The ability to act on a message almost simultaneously with the receipt of the message heading. Thus, it will be possible to present the heading of the message at its destination before the end of the message is transmitted from the originating position.

2. The ability to recognize the six degrees of military message precedence and to handle all messages in a descending order of precedence.

3. The ability to handle multiple call messages automatically in routing line segregation procedures prescribed in ACP 127(B).

4. The compatibility with torn-tape operation, thus allowing piece-meal conversion of the COMINT network to automatic operation as the availability of buildings, equipments, and trained manpower permits.

5. The reduction in substantial numbers of personnel required to handle a specified volume of COMINT traffic.

6. The provision of suitable alarms which guard against loss or delay of traffic.

What is the plan for the 4C's throughout the world? As currently planned, the US COMINT community will enjoy the services of six 4C's, each operated by one of the three Services, in various parts of the world. (Again employed a chart pointing out the 4C's and sites which was unseen by the secretary). Commented on the use of five full duplex circuits to local intercept sites,

It would be ridiculous for me to say that there would be no changes in this program, especially in the number and location of the tributaries to each of the 4C's. Obviously, over-night changes in radio links are not feasible but quick

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shifts in the number and routes of wire line circuits are expected. Likewise, on short notice, we will be able to modify the routing instructions stored in the memory of each 4C automatic switching equipment, thus obviating substantial changes in the routing indicators on a world-wide scale.

In conclusion, in order to make on-line communications work fast enough to provide a real improvement over the off-line mode of operation, and to most nearly satisfy the communications requirements of the U.S. COMINT family, we plan to meld the advantages of each in a COMINT network of on-line circuits and centralized COMINT communication centers.

Major James O. Bolick, Signal Corps, will present a discussion regarding the special version of an automatic teletypewriter switching equipment which is engineered and built for the NSA permanent site here at Ft Meade.

Presentation by Major James O. Bolick, USA,  
Office of Communications

Up to this point the discussion has been primarily concerned with the Communications facilities planned to speed the return of traffic from the field.

Now, let us look at the plans we have for getting this traffic into the hands of the user once it has arrived here. In other words, facilities to take care of internal distribution. These plans have been made with our new operations building in mind. Because of the size of this new building it soon became apparent that Messenger Distribution was out of the question. We considered pneumatic tubes but we ruled them out as not being flexible enough. We are using pneumatic tubes for some special purposes, I might add. We thought perhaps high speed facsimile might be the answer and in fact it showed great promise but we could not find a manufacturer who could guarantee a workable system in time.

We finally decided that teletype distribution would best suit our needs, but we wished to avoid manual teletype distribution because of the personnel required to identify the traffic, decide where it was to go and then send it. If this human factor could be eliminated we felt that we would have the answer to our problems. What we wanted was an automatic distribution device, that would receive the incoming traffic, and automatically switch it to the users within the main building. With these requirements in mind, we invited some of the leading manufacturers of switching equipment to give up their proposals and recommendations for meeting our requirements.

Fortunately, for us, we found that the Department of the Army had entered into a contract with the Automatic Electric Company of Chicago to supply Automatic Switching Equipment for some of their major relay stations. With certain modifications this equipment could be converted into a distribution system to meet our requirements. The Department of the Army was willing to let us have one of these systems, it is now being modified and it will be installed when the new building is ready.

Now in order for Automatic Distribution to be successful, the system must be able to accurately identify the incoming traffic, determine who gets it, set up the necessary distribution pattern and then deliver the message. In other words, incoming traffic must have an indicator that can indicate the distribution required on any particular message. For lack of a better name, we have called this indicator a "Delivery Distribution Indicator" or DDI. The DDI will be a group of three letters of the alphabet which will represent from one to ten distribution points. The first letter of the DDI will be one of two specific letters of the alphabet, the second will be one of ten specific letters and the third will also be one of ten specific letters. Any given message may contain either one or two delivery distribution indicators. If the message requires distribution to more than 10 delivery

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points, two DDI's will be required. We cannot deliver to more than 20 distribution points on an automatic basis. As far as the field stations are concerned, this DDI will be nothing more than a trigraph inserted in a particular place on all traffic. The field stations will be given instructions containing the type of traffic involved and the DDI or trigraph associated with it. It is our plan that a particular DDI will always be associated with a particular type of traffic.

As an example of how this DDI will operate with the Automatic Distribution system, let us say that the field stations are given instructions to place ABC on [ ] and that this traffic requires distribution to three different delivery points in the main building. By means of a plug board at the equipment, this pattern will be set up so that the distribution system will send all ABC message to these three particular points. If the situation changes so that a fourth delivery point must get all ABC messages the pattern will be changed at the plug board and the equipment will now send ABC messages to four delivery points instead of three. If there is a re-organization within the Office of Production, causing the distribution pattern of [ ] to change completely, the instructions to the field will not change. The distribution pattern will be changed at the plug board of the distribution system. This means that the field stations will not be bothered by a constant stream of requests to change DDI's.

I would like to depart from Automatic Distribution for a moment to tell you about an interim distribution plan that we have. We have decided that we will not wait until the day that the automatic equipment is ready for operation to begin the use of DDI's. In the near future, we will begin manual teletype distribution here in the barracks buildings and we will use the three letter DDI's on this traffic. I would like to emphasize that the operation here in the barracks buildings will be manual teletype distribution. Since the volume of traffic here does not approach that which we will handle in the new building, we feel that we can utilize manual teletype distribution to an advantage. At the same time, this operation will serve as an excellent proving ground to get everyone accustomed to the idea of placing DDI's on traffic. This means that we will have at least 18 months experience with the DDI's before we begin Automatic Distribution.

As far as automatic distribution is concerned, field stations will have to exercise a great deal of care in placing DDI's on their traffic in order to take full advantage of the automatic features of our system. Let us go back to our example that requires the delivery distribution indicator of ABC on [ ]. Now if the operator in the field makes a mistake and places ABX on a message of this type, then one of two things will happen when the message appears at the Automatic Distribution System. If ABX is a good DDI assigned to another type of message then of course the equipment will deliver it to the distribution points associated with that particular DDI. If ABX is not an assigned DDI, an alarm condition will occur and the message will be diverted to an intercept position. Then an operator will be required to take the message out of the system, determine who should get it, place the proper DDI on it and then introduce it into the automatic distribution system again. It can readily be seen that if either of these situations occur, a great deal of time and effort must go into getting the message back in its proper distribution channel.

I have emphasized the use of DDI's because they are the very heart of our distribution system. I do not mean to imply, however, that the DDI is the only information the field stations must place on each message. The DDI will be only one item of a special routing line inserted as the first line of the text. However, all the other items of importance in this special routing line will be fixed and will require no special effort on the part of the field stations, except of course, to make sure that the routing line is complete and correct.

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I have touched briefly on some of the aspects of our automatic teletype distribution system. I have deliberately stayed away from a more technical discussion concerning this subject. For those of you who are interested in more details, I will be happy to discuss it with you at your convenience.

Our next speaker will be Lt. Col. Brock, Air Force. Col. Brock is Chief of the NSA Communications Center and he will discuss the Communication Circular Program with you. -----Col. Brock----

Presentation by Lt. Col. G. B. Brock, USA

My topic of discussion is the NSA Circular Program which deals with electrical communications.

We all know the need for reliability and speed in the communications business as it pertains to the COMINT field.

While progress has been made during the past few years in developing improved cryptographic and teletypewriter equipment, little effort has been made to improve operating procedures, especially those pertinent to ON-LINE operations.

We have been aware of this for some time and we believe our 101 Series Circulars will provide the answers to some of our problems.

First, a little background as to why we need this Circular program:

Let us approach this from a tactical communications point of view rather than the general command and administrative communications system which handles any and all types of traffic to any place on the globe, for COMINT traffic is related closer to tactical communications than to administrative communications.

The Office of Production writes Circulars which tell the intercept stations the methods under which they will operate. Getting this intercept information back to the Consumer depends on communications; therefore, it is very necessary that rules governing this Communication System be concise and simple - in order that they may be effective.

So let's face it - the present JANAPS and ACP's do not cover our ON-LINE operations. Aside from this - each Service places its own interpretation on these Joint publications - and these interpretations are primarily made to benefit that particular Service, be it - Army - Navy - or Air Force.

We in NSA have a definite requirement for a common procedure that covers Off-Line and particularly, ON-LINE operations with all three Services, so that we may relay traffic from Service to Service - and even through foreign channels with the minimum delay.

Foreign governments, types of equipment and the quality of circuits impose restrictions and problems. Now, these problems are not entirely solved by ACP 127 Baker or any of the other unified publications.

Last but not least, we are advancing in technique - the 4C's and the Automatic Distribution System require modifications of present procedures - so we need some actual experience with a procedure that is common to all Services - prior to the introduction of these new techniques.

We have published one circular and have four others in various stages of completion.

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Circular 101-1, covering the internal message format, has been in use with Services concurrence, since last November.

Circular 101-2 deals with ON-LINE Net operations and is in the process of being re-written to include certain changes recommended by the Services and Field Units.

General instructions for Off-Line operations are covered in Circular 101-3. Circular 101-4, Message Servicing Procedures, will soon be forwarded to Service Headquarters and Field Units for comments.

Lack of uniform operating procedures - such as - message formats - routing methods and transmission instructions were not cause for any great concern when our ON-LINE operations consisted primarily of a group of individual stations - few of which relayed other stations' traffic. However, as the number of stations operating ON-LINE crypto facilities increased, our in-station handling became more involved. We assumed that your communications people were faced with the same problems - possibly to a lesser degree - but still causing an increase of handling time throughout the various ComCenters. This increase in handling time can be attributed partly to increased traffic volume, but, in-station delays caused by incomplete relay instructions - multiple transmission requirements - inadequate message servicing procedures, and varied format requirements, placed on the NSA ComCenter by the Service Communications Nets, were and are, contributing factors to the over all time lag between the time of receipt of a message to the time of transmission or delivery of the message. As ON-LINE operations continued to increase, with resultant increase in handling time, we became more and more aware of the need for Uniform Operating Procedures. With this end in view, we proceeded to analyze traffic from all three Services to determine which procedures would best meet the requirements of both addressee and originator and which would cause the least amount of work for both the originating and receiving ComCenters.

Considered first, was a message format which could be utilized for both ON-LINE and OFF-LINE operations, and which would permit delivery of page copy by the receiving ComCenters with no additions or deletions. This problem was resolved with the publication of NSA Circular 101-1.

We believe NSA Circular 101-2 provides our communicators with a comprehensive set of rules which will enable them to process traffic with less work - less delay and less confusion because of varied in-station practices.

NSA Circular 101-2 contains NET operating instructions - outlining procedures for pre-determined routing. By prescribing this method of routing we have eliminated many of the time consuming processing steps previously required to relay multiple addressed traffic. We have also provided a system for routing traffic via alternate ON-LINE facilities. These procedures eliminate many trans-oceanic transmissions, since designated stations will automatically relay traffic addressed to other stations in the same geographical area, including addressees of another Service. In preparing this Circular, and the other four, we have tried where possible, to reduce the load of the Communicator in the field.

NSA Circular 101-3 is being prepared to guide communicators in the preparation of OFF-LINE encrypted traffic. The scope will be limited to phases of operations not governed by JANAP/ACP publications and will include - for example - tape storage requirements. We believe this subject matter should be covered to insure uniformity and to maintain continuity of the Circular Series.

One of our major problems, from the using sections standpoint - has been the identification of traffic referred to in service messages - particularly - voluntary re-encryptions. Circular 101-4 has been prepared to guide communicators in the preparation of service messages - and prescribes rules for the how -

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when - and to whom. Included are instructions pertinent to service messages which involves the use of both ON-LINE and OFF-LINE facilities. Our ON-LINE/OFF-LINE operation is unique and no other publication dealing with this type operation is available to field units. Circular 101-4 is primarily - a document prescribing accepted and proven service procedures.

Our last circular, still in the preparation stage - is entitled - Communications Facilities Control. We hope to come up with general rules governing maintenance of circuit performance logs - standard phraseology to be used while transmitting in clear text to establish synchronization, and general maintenance guides which will enable concerned to obtain maximum utilization of our ON-LINE and OFF-LINE facilities. This Circular will - for example - guide facilities control personnel in determining when to revert to OFF-LINE operations in the event of failure of SUCO or other ciphering equipment.

Your comments on the circulars, forwarded through NSA field activities - have been helpful in their preparation - and where possible and practical, recommended changes will be incorporated prior to implementation.

We are not attempting a fifth wheel type of Circular program - but, with your help, I am sure we can come up with one standard method of Communications Procedures that will work across the board with simplicity and effectiveness.

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- A. Topic No. 4"A"
- B. COMINT Communications
- C. Round Table
- D. Chairman: Captain Arthur A. Enderlin, USN, Chief, Office of Communications
- E. Highlights:
1. Discussion of communications problems involving Japan, Philippines, and Hawaii.
  2. Discussion of new trans-Atlantic cables, viz:
    - a. American Telephone and Telegraph Company/British Post Office voice cable.
    - b. American Cable and Radio Corporation telegraph cable (under consideration).
  3. Discussion of the problem of standardizing communications procedures. Items particularly emphasized were (1) communications centers being confronted with varying U.S. procedures as well as the procedures of the Commonwealth countries, (2) the relative merits, with respect to headings, of digraphs, routing indicators, and the message indicating group.
  4. Discussion of the CCCC's including (1) primary employment for COMINT communications, (2) use of the CCCC's by the cryptologic Services, and (3) effect on existing communications arrangements on the technical level between U.S. cryptologic centers in Europe and U.K. counterparts.
  5. Discussion of courier forwarding including (1) attempts to devise means to reduce physical volumes by use of recordings, and (2) possibility of reducing material currently airlifted by using surface transportation.
  6. Discussion of 5UCO, usefulness, limitations, and plans for replacement with Cryptoplex.
- F. Particular problems and the actions required to resolve such problems are evident in the summarization of discussions contained under Item E above.

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Topic Number 5

Subject: Collateral Support to Field COMINT Organizations

Round Table Discussion "B"

Chairman: George B. Brown, Chief, Technical Library Division

This round-table discussion was conducted in three parts, a presentation on Library support of field operations, a presentation of operations of the Publications Division and its facilities for support, and a question and answer period.

a. LIBRARY ACQUISITIONS.

(1) LIB is committed to support of the NSA Field Activities through its Agency mission of responsibility for procurement action on all publications obtained at cost or obtained cost free from government agencies other than the Department of Defense. Publications procured by LIB are therefore almost exclusively of an unclassified nature.

(2) To date the unclassified publication needs of the Field Activities have fallen into two main categories:

- (a) Bilingual and English language dictionaries standard to NSA operations.
- (b) Publications of the International Telecommunications Union ("Berne Lists").

(3) Dictionary Procurement: LIB considers any request from a Field activity to have top priority. In order that requests may be filled immediately LIB maintains stocks of the commonly used dictionaries in anticipation of requests for shipment. Titles requested and not normally stocked are given priority handling. Where possible, local purchase is initiated and the Imprest Fund is used. This failing, LIB tries to select the dealer or publisher promising speediest possible delivery. Occasionally requests are received for items which exist in very limited or no

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stock in the United States. Procurement of these items must of necessity take longer. Field activities having funds which may be used for purchases in their own local areas would do well to procure for themselves foreign titles published in their areas.

(4) Accountability and Handling: All books incorporated into the NSA Library are vouchered. It is implicit, therefore, that all Library material be shipped from this account and this account only. LIB acts on requests only through the coordinating facilities of the Field Operations Direction Group (NSA-063). LIB then prepares an Army Shipping Document covering each shipment, a signed copy of which must be returned to LIB as a duly constituted credit voucher to the NSA Library Account. Shipments are made by sea unless urgency warranting air-mail delivery is clearly indicated.

(5) ITU Publications Procurement: LIB initiates purchase action on all ITU publications utilized by all service intercept stations. LIB's responsibility here is exclusively that of a purchase channel. The definition of the requirement and the control of the distribution is the responsibility of the Office of Collection. LIB actions are taken only at written direction from that Office.

b. FOREIGN PUBLICATIONS COLLECTION PROGRAM OF IAD.

(1) Because there continues to arise the suggestion that NSA Field Activities lend support to this Headquarters in the procurement of foreign language publications, it is felt that an explanation of our participation in the foreign publications procurement program of the Intelligence Acquisition and Distribution Division of the Department of State would be helpful.

(2) In the Intelligence Acquisition and Distribution (IAD) Division in conjunction with Foreign Branch of the CIA Library there is coordinated a world-wide foreign publications collection

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program. Foreign Service personnel do the collecting in the field. There are five full-time Publications Procurement Officers (PPO's), one each in Berlin, Paris, Moscow, Hongkong, and New Delhi. In addition there are part-time PPO's. The full time PPO's and the part-time one in Tokyo select for the Washington participants within defined categories of requirements as well as fill requests for specific titles. Specific titles may be forwarded for action to any of the other Foreign Service Posts.

(3) In FY 1953 NSA requested participation in this program and each year since has transferred funds to The Department of State to cover cost of the publications collected. Funds so transferred in FY 55 total \$21,000.00. Publications pertinent to NSA's needs have become generously available, and it is felt that within the framework of this program the Agency's foreign publications needs are being largely met. To date the only cost to NSA is the cost of the publications themselves. Participation in the IAD program obviates the necessity for dependence in large measure upon NSA Field Activity personnel for publications procurement. At the same time, there are the unusual items, the hard-to-get items and rare occasions on which a particular request can best only be met by assistance from the field; and in these cases necessary fund arrangements either exist or can be made.

c. PUBLICATIONS DIVISION SUPPORT OF FIELD OPERATIONS

(1) There are two main areas wherein Publications Division can be of assistance, first, in answering specific inquiries, and second, in preparing and disseminating reports.

(2) The Publications Division compiles and maintains very extensive and very detailed files covering all countries of the world. Source material for these files comes from both COMINT and collateral publications, and they are intensively indexed in such a way that information concerning areas, subjects, personal-

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ities, organizations, and other matters of concern to analysts can be readily obtained. The files are maintained primarily for the use of operating offices and divisions under the Deputy Director, Production, but are equally available for use in answering questions from the field. Field units may request information by cable or by courier, and replies will be forwarded through the same channels. The major problem encountered by this Division in answering field requests is the determination of what is actually wanted. The questions are not specific enough. If requesters state clearly exactly what they want and, if possible, the intended use of the information, the Division will be better able to provide all the information required and conversely not provide information lacking pertinence to the problem. Working aids are being compiled and management studies undertaken in an extensive effort to reduce the time required to provide service of this nature.

(3) In the field of reports, some are prepared on a continuing basis, and others on specific request. For example, the IBM runs  have been published about once a year. More frequent publication is probable. This study is of obvious interest to USN-39 as well as to NSA. Individual studies are normally done at the request of one of the PROD divisions; however, similar studies or tabulations can be made if required on request from the field.

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d. DISCUSSION

(1) The discussion centered around two main problems, the dissemination of collateral information to the field, and the need for standardization of terminology.

(2) In summary, some field units are getting no collateral support, others are getting some, but feel that additional information is available that would be of use to them, while others are getting more than they can absorb.

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There is no standard for determining dissemination on an overall basis as the mission and needs vary. The responsibility of NSA in this field is not clear in relation to dissemination of collateral documents to field stations by their parent services. There appears to be a need for surveying the requirements of each headquarters and station, determining what each is now receiving, either from its parent service, from NSA, or by lateral dissemination in the field; then, establishing an automatic dissemination system based on requirements. Extension of arrangements for lateral distribution in the field, particularly of CIA reports, appears desirable. A staff study of this whole problem is essential, and one has been initiated by the PROD staff.

(3) Concerning standardization of terminology, the discussion centered on place names. It was pointed out that, with coordinates lacking in messages, with the numerous possibilities in transliteration, and with Japanese, Chinese, Korean and US maps in use, it was very difficult to pinpoint the place or cultural feature mentioned. It was reported that a manual was in preparation in PROD that should clear up much of this problem, and that it would be ready for the printer "in a few weeks". Field distribution will be made.

(4) There was general agreement that round-table discussions of this type were most useful, and that they should be supplemented by more field trips to give individual station personnel regular opportunities to discuss their particular problems with Headquarters personnel.

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## MEMORANDUM FOR THE RECORD

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EO 3.3(h)(2)

- A. Topic No. 6
- B. British Empire COMINT
- C. General Meeting
- D. Chairman: Col. John J. Davis, USA, Chief, Plans and Policy Division
- E. Highlights:

Presentation by Col. Barton S. Pulling, SUSLO, London and NSAUK

This noon my general topic is British Commonwealth COMINT. I plan to cover this subject by explaining to you, with diagrams where appropriate, the following facets:

- a. The place GCHQ occupies in the British government;
- b. The reorganization of GCHQ and my views on the reasons for the reorganization and its effectiveness;
- c. GCHQ - USLO technical support to U.S. COMINT units in the European - Mediterranean area and the compromises made by both sides in order to furnish this support.

The role of the liaison officer is not always pleasant, but it is invariably fascinating and instructing. I'm a little cogwheel between two big wheels. The big wheels, for reasons of national prestige, can never make mistakes. Hence any differences in view or interpretation can be laid on to the little wheel. My broad, expansive brow speaks more eloquently than words to show that I have learned the philosophy of the little wheel.

Now, I would like to discuss with you the place GCHQ occupies in the British Government. We are all familiar with our own national organization and if you make mental parallels as I talk I believe you will find the similarities and differences instructive. Probably the most noticeable difference between the corridors of Arlington Hall and those of Oakley Farm is that in Cheltenham you will see no uniforms. GCHQ is a civil service organization, administratively under the Foreign Office, and its Director has a civil servant's rank with pay and privileges equivalent to that of an Admiral, full General or Air Chief Marshall of Her Majesty's Military Services. The picture is made more clear if you study this diagram. (#1 - show and explain) Note that the London Signal Intelligence Board reports upwards to two seniors. The LSIB is composed of the following officers:

The Director General, SIGINT - Chairman  
 Assistant Under Secretary of the Foreign Office  
 Directors of Intelligence and Signals, Admiralty  
 Intelligence Officer and Chief Signals Officer, War Office  
 Assistant Chiefs of Staff, Intelligence and Signals, Air Ministry  
 Director of Security Services (MI-5, equivalent to F.B.I.)  
 Director, Joint Intelligence Board  
 The Directors of GCHQ and LCSA

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Because I had served in both the USAF Security Service and AFSA and had participated in the planning which formed both of those organizations and NSA, I looked forward to my assignment to London as an opportunity to see for myself if the British did a better job of COMINT organizing. I was especially interested in determining if almost complete civil control would solve the organizational problems and frictions we in America were faced with. The simple answer is that the British have solved the problems arising out of the controversy between the services and the national center and between civil and military control. There is little disputing or haggling about the paramount position of the civil director of GCHQ. Unfortunately, in solving these two, related control problems, the British have created a couple of others, which I believe are more horrendous and less acceptable to resolution. These are: first, a tradition-bound, eight to five, bureaucratic structure, and secondly, a quite indifferent, or at best unenthusiastic, attitude on the part of the services. Collaboration with the U.S., especially the Combined Naval Party, has helped to pep up the British center structure, but the influence of the naval party has been restricted to naval reporting and communications. Maybe the British are right, "timely center" being mutually contradictory words. I see no relief in the area of unenthusiastic service participation.

Turning now to GCHQ proper (Chart #3) the first thing that strikes the eye is the tremendous number.

The organization you see before you went into effect, more or less, on 1 November 1954.

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I especially want to draw your attention to [REDACTED]

[REDACTED]

We now come to what is, to me, the most important portion of my remarks to you this morning. That is, a statistical study with an interpretation of

[REDACTED]

[REDACTED] My staff is concerned with starting and monitoring the flow and acting as your agents. Please note that neither U.S. producers nor consumers nor international consumers, like SHAPE, are included. The volume would be three or four times that to be shown if these three other categories were added.

The first chart of the group (#4) is concerned with [REDACTED]

[REDACTED]

The second chart (#5) shows cryptanalytic support - drawn to a different scale - which did not change materially, and end-product support, which dropped about 20%.

[REDACTED]

The final chart (#6) is a recapitulation. There is a possible lesson for the communicators here; note how the [REDACTED] We can never afford to be caught without more than adequate communications so unexpected loads like this can be assumed without breaking the backs and hearts of the ComCenter personnel.

When I consider how [REDACTED]

[REDACTED]

[REDACTED] I wonder how "we" do it. By "we" I mean both the U.S. and the U.K. On the British side you have GCHQ [REDACTED]

[REDACTED]

[REDACTED] as well. On the U.S. side we have shown, on the whole, a willingness to recognize British limitations and go half-way to devise forms and procedures that will meet the requirements of both countries. It is not always easy to reach agreement and it is often hindered by short-sighted "super-patriots" on both sides of the Atlantic, who can see no advantages for their nation or service unless they personally control and run every jot of it. I feel that I am doing more for my country if I can devise a scheme whereby the United States gets all of the available intelligence on a subject by working with the British than a scheme which gives us only two-thirds of the intelligence by doing it alone. Some correspondence from Washington in my files implies that my attitude is little short of traitorous.

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It has been stimulating to talk to you this morning and I am now ready for questions. I suggest we take them in the order of my presentation.

F. The discussion of Col. Pulling's presentation was particularly concerned with the following.

a. Nature and method of operational control exercised by GCHQ.

b. GCHQ concept of close support and decentralization.

c. UK method of COMINT dissemination ☐

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d. Relationships between UK COMINT consumers and GCHQ.

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- A. TOPIC NUMBER: 7
- B. TOPIC NAME: INTERCEPT CONTROL PROCEDURES
- C. TYPE OF SESSION: GENERAL MEETING
- D. CHAIRMAN: MR. O. R. KIRBY, CHIEF, OFFICE OF COLLECTION

Mr. Kirby introduced himself as the Chief, Office of Collection and stated that the topic for discussion was Intercept Control Procedures. He welcomed any questions or comments on this topic after Mr. Boardman had delivered his talk.

## E. PRESENTATION:

The following presentation was made by Mr. N. Boardman, Deputy Chief, Office of Collection:

I am very happy to have the opportunity of discussing the topic of intercept control with this particular group. In presenting my talk I propose to point out some of the "whys and wherefores," briefly review its history and describe some of the more important aspects of our present procedures. But first, I would like to define the term "intercept control." It is that procedure which is designed to insure the most effective utilization of intercept facilities. I'll be referring to this definition throughout the rest of my talk.

What are some of the "whys and wherefores"? First-SIZE. Bear in mind that the US COMINT effort is now wearing long trousers. The direct and indirect costs run into millions of dollars annually and we are steadily expanding. In terms of intercept positions in use, we now have about 2000 of an estimated or approximate goal of 4000. These are positions in use. In addition, there are thousands of people who individually and collectively are contributing their talents and sweat to make the US COMINT effort successful. The very size of our effort, therefore, makes it imperative that standard intercept control procedures be used to obtain the most effective utilization of all our resources, including personnel and equipment.

Secondly-SENSITIVITY. The requirement of the US COMINT effort to respond automatically to emergency situations brought on by the cold war is perhaps one of our most challenging problems. Because of this requirement we alternately act as a cause and effect of US foreign policy. We must be prepared to react as soon as possible to the requirements of this policy to accomplish our mission successfully. A consistent procedure with built-in flexibility features is essential to provide for instantaneous action on any one emergency without disrupting the entire effort.

Thirdly-SCOPE. The scope of the US COMINT effort embraces all types of intelligence derived from radio communications including military, naval, air, weather, economic, diplomatic, technological. You name it-- we have it! To provide for the wide varieties of requirements, the national COMINT establishment has devised the present intercept control procedure. This procedure is definitive, leaving as little to the imagination as possible. It is comprehensive; to cover a wide variety of situations. It is flexible for emergency conditions and finally it is changeable as dictated by the tactical situation.

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In my definition of intercept control I emphasized the word "effective." In one instance it could mean an intercept position operating 24 hours per day producing a high volume of traffic. In another instance "effective" could mean an intercept position guarding a particular frequency or frequencies without copying a single message for days, weeks or months. This type of negative information is perhaps as valuable as a "slew" of messages. In both instances effective utilization is achieved.

To recapitulate, US Intercept Control procedures are designed to achieve the most effective utilization of US COMINT resources taking into account the size, sensitivity and scope of the US COMINT operations.

Now, for a brief historical review of intercept control throughout the years. Back in 1941 in the Army, intercept control was exercised chiefly by the intercept operations officer, and his effectiveness was largely measured by the total number of messages copied. This sometimes resulted in as many as 10 copies of the same message arriving at Arlington Hall Station.

Later on, about 1942-1943, procedures were devised which still left a large measure of decision to the intercept operations officer but did give him a block of targets arranged in priority order. This meant that coverage was spread more evenly over a larger number of targets in the existing intercept stations. Conversely, the US Navy employed a more rigid system which included "cast iron" and "continuent" coverage. Cast iron coverage meant that an operator stayed tuned on a particular target to the exclusion of everything else. Both of these systems were quite successful inasmuch as COMINT emerged from the war as one of the most important sources of current intelligence available to the US. Remember that during the war a large portion of COMINT processing was accomplished in the field. After the war, the Army and Navy COMINT organizations joined forces and established joint procedures. In the field of intercept control, the procedures adopted attempted to retain the best features of the former Army-Navy systems. The result was that certain types of cover, like manual Morse, were assigned in terms of position conforming somewhat to the Navy "cast iron" method, whereas other cover, such as Radio Printer and International Commercial Radio, was assigned in order of priority. During this period, extending roughly through June of 50, processing and control of the US COMINT effort was largely centralized in Washington. During this period also, the US Air Force established its own independent cryptologic service and joined the US COMINT family as a full, red-blooded relative. I feel that the vigor and initiative displayed by the Air Force Security Service in getting their operation under way has been an outstanding and noteworthy achievement.

After the invasion of South Korea, processing and control of certain COMINT problems were decentralized to the field. This resulted in several major COMINT successes which left no doubt in the minds of the tactical commanders as to the usefulness and value of our product. Because of the lessons learned during the Korean War, and because of the continuing tenseness in the world situation, General Canine directed the continuance of the decentralization policy, and this program is being vigorously carried out. It is intended that this policy will enable the various field processing centers to support a tactical commander at the drop of a hat, or an atom bomb. As in the past, as well as from here on, the US COMINT effort is poised, ready for action if and when the time comes. This fundamental requirement of readiness underlies all of the operational planning and policy of the national COMINT establishment.

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Finally, a brief review of our present Intercept Control Procedures. The three main aspects of our present procedures are: Categorization of Cover, Types of Cover, and Flexibility Features. I will discuss each of these aspects individually.

1. Categories of Cover. Why do we have to divide cover into the various categories that we do?--A, B, C, D, R, and J.

Each of us has to give a periodic accounting of our stewardship. All of us have either been in the Service or been associated with it. We all know, for example, that Private Smith has to report to Corporal Jones, Capt. Brown has to report to Major White, and that General Canine has to report to the Secretary of Defense. He has to tell Mr. Wilson how the US COMINT resources are allocated and how they are utilized. Let us review these for a moment:

Category A - Those positions which are under the control of the National COMINT Establishment and provide for the collection of traffic of global interest. For example, ICR (International Commercial Radio), and certain printers.

Category B - Those facilities under the control of the Service cryptologic Agencies.

Category C - Those facilities under the control of the field processing center, for close support, etc.

Category D - Those facilities under the control of the intercept station for local flexibility needs.

Category J - Those positions under the control of the National COMINT Establishment, collecting traffic of joint interest to the National COMINT Establishment, field processing centers, and the Service cryptologic agencies.

Category R - Those positions under the control of the National COMINT establishment for Research and Development (Technical Search).

Note that Categories J and R have recently been introduced to provide Mr. Wilson with a more meaningful breakdown. These additional Categories will be included in the forthcoming revision of NSA Circular 51-10.

In the final analysis, there are very few NSA-type targets. NSA intercept requirements are in accordance with the stated interests of the consumer agencies.

The next chart I have is of general interest and gives some idea of the present intercept situation on a man-hour per day (MHPD) basis. These figures have no relationship to installed or utilized facilities, but relate directly to the number of operators who are assigned targets. I'll give very general figures on totals of operators in terms of assigned missions: 3,000 - Army; Air Force, roughly 2500; Navy, 1000; CIA, roughly 50. We have estimated that Category J has 2/3 to 3/4 of the total devoted to Category A. Categories J and R will be introduced in a forthcoming revision of NSA Circular 51-10. Over all, we have roughly over 7000 operators (on the job) who are employed in these categories and otherwise on the intercept missions that we have assigned, including Categories A, B, C, D, J and R.

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Now, finally, a brief discussion of the various types of cover which are now in effect as the result of our present procedures. In considering types of cover, it is important to realize that there are not enough facilities available to cover all known targets, nor do all known targets require the same type of cover. For these reasons the types of cover shown here have been established. The reason we have these types of cover is so we may get the most coverage we can possibly get with the existing facilities shown here. I'm sure these are all familiar to you. I will review them rather quickly.

## 1. Full Cover

- a. 24 hour
- b. Part of day.

2. Search and Development (Including General Search). These positions are more or less self-explanatory.

## 3. Groups.

- a. Blocked (ICR)
- b. Scheduled.

## 4. Rotating (POROCO)

- a. Priorder-Relative Priority.
- b. Sampling-T/A continuity
- c. Cyclic - A continuing cycle for crypt continuity.
- d. Split - A combination of all three.

## 5. Alternate

Adjustments of Intercept Missions - Flexibility.

These features apply mainly to Category A and J cover. Category C cover already gives a large measure of authority to local control units in the field.

We have instituted these features to give additional authority to station commanders to insure a more effective utilization of intercept facilities. They recognize certain on-the-spot knowledge of intercept target operation, local receiving conditions, etc. About a year ago we found it was necessary to do this for added flexibility at the field level.

a. Intermediate intercept control authorities (6910 Security Group, ASAFE, USN-39 and so forth) were given the authority to transfer or exchange assignments among intercept units under their control. (Some people didn't believe me when I told them this, but it is true!)

## b. Intercept stations may:

- (1) Regroup or interchange cyclic, split, and sampling POROCOS to obtain the best results from their coverage.

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- (2) Adjust full cover for maximum results. Exception  
 Priorder POROCOS may not be changed without prior  
 approval of the controlling authority.

c. Intermediate intercept control authorities including stations may add to assignments newly developed cases by regrouping or adjusting on the sampling or full coverage, as I indicated before, in priority order. We still have certain requirements, mostly crypt and T/A-wise, and want the maximum coverage from certain cases. We want your suggestions for improving these procedures if you feel there are any to be made.

d. Adjustments involving periods of greater than 24 hours duration will be reported by a priority message.

What does all this mean? Basically, it means that we are all in this together, working for the same boss, doing the same type of job. I am sure that by mutual understanding of each other's problem the successful completion of the job will be accomplished more quickly.

I would like to emphasize that we welcome all recommendations and suggestions regarding the intercept control procedures, including the intercept assignments themselves. Each message, I can assure you, receives the utmost consideration.

During my talk I have attempted to show the development of our intercept control procedures and the reason for their establishment. I would like to sum it up by saying that Intercept Control exists to get the job done. It is not an end in itself, it is the means to an end. It is not a total on a chart. It is the initial phase of a sequence of operations which ultimately leads to the publication of the US COMINT product. The product that may be destined to play the major role in safeguarding the security of our nation.

#### F. DISCUSSION:

It was asked if it would be possible for messages to receive more prompt attention than they have in the past. Mr. Boardman replied that he hoped they "had facts and figures" so that proper action could be taken. "I am sure that we all feel this very deeply. I'm not going to blame this on any one thing. We are trying very hard and doing everything we can to improve. It is certainly not standard practice. I would like to talk this over with anyone who, perhaps, has a particular instance to discuss."

LCDR Nicholson stated that his station had sent a message to NSA saying that in 30 days he would lose so many people; in 10 days he notified us again, and finally the actual loss occurred, resulting in a two-week loss of coverage, because no action was taken.

Mr. Boardman asked if LCDR Nicholson spoke from the aspect of USN-40, and received a negative answer, that he was speaking from an experience of perhaps two years ago. He added that he didn't know whether the message went direct to NSA or NSG, but if there was some delay in getting the message through, that probably there would be something that should be looked into. LCDR Nicholson stated that the same channels were followed as coverage assignments. Mr. Boardman assured them that it was not by design that it took so long, that NSA certainly treats all messages of that nature as a matter of priority.

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"I know from experience that it means working at all hours but we have people--devoted people-- cognizant of the field problem, most of whom are former intercept people themselves."

It was asked what the established channels were for the Navy and LT R. A. Langdon, USN, (USN-12) said that they went through NSG and dispatched to NSA, that in his personal experience it had taken 13 days one time.

Mr. Boardman said that the matter should be looked into after the meeting to see if anything could be done to improve this situation.

It was stated from the floor that with a decentralized problem, Category C position, when a station drops a position or a position becomes available, it always seemed to happen that the position dropped was a Category C position. The position normally available always seems to be a Category A position. Mr. Boardman answered, "Things are not what they seem to be! It may seem that way to a person sitting on a particular problem, but each decision is made in accordance with operational necessity." It was also disclosed that certain other elements in the field also felt that way.

Mr. Kirby said that statistics tend to disprove this and that there was constant usage of both Category C and Category A. "Looking at the gains in the course of the last 6 or 12 months, you will find that there is an equitable distribution..not all A, and not all C; no reductions in C or tremendous gains in A--some increases in both, and some reductions in both categories of coverage.

CDR G. Chiles, USN, USN-39 asked for a discussion of the Intercept Priorities Committee, and was told that this would be discussed later.

CAPT Wright asked about an adjustment to be made on the Formosa plan to compensate for the shifting of positions. Mr. Boardman told him this could be found in Phase 1, and agreed that there had been a lot of adjustments between USN 11 and 14. "I suggest that we review it by going to NSA 61, in Room 1B2, right here at Fort Meade."

COL B. S. Pulling, USAF, CH, NSAUK: "I believe there is some misunderstanding on that first chart...Category A and Category C authority in the field to shift cover. Authority in the field to shift cover on Category A refers only to those problems to be decentralized in the field. This is certainly controlled by NSA. There is no authority in 51-10 referring to Category A charts. There may be a later Circular than December 1954."

Mr. Kirby: "I would argue with you on your understanding of the provisions of the Circular. On the basis of local analysis, your intermediate authority, on the basis of analysis, you can adjust the total, up or down. If we want 18 hours of cover and the links operate on a schedule of only 6 hours a day, you can make the adjustment for it, and let NSA know if it is over 24 hours duration. Field headquarters means something different to each Service. An intermediate headquarters has the authority to shift coverage assignments back and forth. Granted, we make the initial assignments to a station by position. If the intermediate control authority feels it can better be handled by another station, it does have the authority to make the shift."

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Mr. Boardman presented the portion of NSA Circular 51-10, Section VII, Adjustment of Intercept Assignments, para 1, "In order to provide increased flexibility and more efficient utilization of intercept personnel and equipment, intermediate intercept control authorities down to an including intercept stations are authorized to make local assignment adjustments, irrespective of category within their cognizance. Commanding Officers will exercise caution in implementing this program to prevent abuse."

Mr. Kirby said that he would like to point out that "this is a misunderstanding of what authority actually has been given to the outfits out there. I might say that there might have been a simpler procedure. There are times in any organization, NSA or any other, when you may get ahead faster by asking permission to do something after you have done it."

Mr. H. L. Clark, CH, NSAEUR, asked about hours of coverage.

Mr. Boardman stated, "That means that some transmitting stations only operate 8 hours a day, some operate 24 hours a day. When we say we want full coverage, it means full coverage of 6 hours if they only work 6 hours a day."

LT COL L. O. Jameson, USAF, 6950 SG: "Approximately 10 months ago we had about 90 positions in [redacted] on last check we had approximately 49. I wonder if there is any plan to get it back up where it belongs?"

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EO 3.3(h)(2)

Mr. Kirby: "That is a very good question. Unfortunately, I don't know if any one here is capable of answering that question. Intercept Control people act as a final point of departure; a lot of work goes on before that. I suggest you get together with the people in 90. These figures on cover on a specific target are the direct result, in 99% of the cases of decisions made by the IPP Committees, so if something has been cut it is the result of one of these committees, the procedure followed in making assignments, cuts, etc."

Mr. Boardman: "Basically, the intercept priorities procedures are laid on by two committees. One is the IPC, which meets once a month to recommend any or all changes which should be made in the allocation of coverage. The IPP's meet to adjust the cover within a block of positions that has been assigned to them... the total US intercept facilities were at one time divided up--so much to [redacted] etc. These committees recommend what category should be decreased or increased. The whole business is acted on by an IPP. They have complete authority to change the intercept assignments within their block of cover. There are certain fundamental processes that are inherent to our operation. We try to adhere to the theory of homogeneity--same type of coverage to each station, amount of processing, etc. If, for example, a group of positions becomes available at USN-40, it is pretty sure that they'll go on [redacted] Basically, the intercept allocation is cut up like a piece of pie, so much for each-- [redacted], etc."

Mr. Price of NSA-70 is very disturbed about the drop of cover on [redacted]

[redacted] Similar actions take place quite frequently. I can assure you that every analyst is very jealous of his coverage allocation and is quite anxious to retain what he has.

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Mr. Connelly said he would like to mention that the IPC is composed of NSA people and the intelligence consumers, Army, Navy, Air Force, CIA and the FBI. These people decide if their problems are getting a fair shake. If there is something apparently wrong in the Air Force cover, we hear from COL Ronka or Mr. Clark. The intelligence consumer is really passing on how the cover is being allocated.

COL J. L. Weeks, USAF, 6920th: "I think we have some confusion with a decentralized problem as it concerns intercept control and processing. It was agreed that the revision to circular 51-10 should indicate quite clearly that the flexibility features of intercept control refer to the complete intercept assignment and not only to a decentralized problem."

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~~TOP SECRET EIDER~~MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER 8.
- B. TOPIC NAME: PLANT INSTALLATION.
- C. TYPE OF SESSION: GENERAL MEETING.
- D. SPEAKER: MR. JOHN A. MCINTIRE, OFFICE OF COLLECTION
- E. PRESENTATION:

I am going to explain the trends in the planning for standardization and improvement of the field station facilities. This is considered a highly desirable project in order that one of the major factors detrimental to the successful accomplishment of the primary mission of the cryptologic organizations will be eliminated or reduced to a minimum. It is the basic responsibility of the majority of individuals here to use all means at their command to obtain factual copies of those communications transmitted by various methods by target nations, and in turn to forward such material to processing centers where the intelligence can be derived and submitted to the consumers.

The target nations realize this potential threat to their closely guarded plans behind the Iron Curtain, and are using their best technical talent and resources to develop means for preventing utilization of this source of information. Therefore, we must employ the most qualified personnel and provide the best equipment to keep current with developments in communications and devise methods that will continue to obtain the desired data.

There are many factors that affect the success or failure of our COMINT effort. Among these are operator quality, facilities, communications to the processing centers and so forth. We will confine this presentation to the subject of facilities, only.

At the end of World War II, each Service was going its individual way, using mostly facilities classified as standard within that Service and chiefly interested in CW missions passing various types of enciphered traffic. Although that system of communication is still in use, the target nations have progressed in their development and use or have the capability of using modes such as Single Sideband, Multiplex and, as we have labeled it, Flexible Multiplex. Their cryptographic methods have also improved, resulting in stringent requirements for absolute accuracy in the intercept copy by our analysts. Therefore, those sections responsible for providing the facilities to perform the mission must select the equipment that reflects the latest developments from the research and design standpoint, and a field plan layout especially applicable to the COMINT mission. When this is achieved, the facilities factor is virtually eliminated as an element of chance in the performance of the assignments.

During the past year a Circular was issued from this Agency entitled, Minimum Standards for Permanent and Semi-Permanent Intercept Stations. It was intended that this document would delineate the minimum standards for plant facilities in the field, and could be used as a criteria in judging the adequacy of a station.

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It was distributed to the respective Service Headquarters, but not forwarded to the field. Comments and constructive criticism were received concerning the contents of the Circular. After review and study, a revised edition has been compiled and will be issued in the near future. It is considered a tribute to the originators of the Circular that the majority of the comments were minor and did not constitute a wide difference of opinion.

Before proceeding further with an explanation of Circular 54-1, I would like to give you our interpretation of standardization. We do not expect every station to be exactly the same as are some of the housing developments in the Ft Meade area. Duplication would tend to defeat the COMINT effort since requirements vary from one geographical location to another. Instead, it is our desire that each operations building be designed to permit maximum efficiency in control and traffic handling and that each position within a Service be the same according to type. Eventually, each individual type of position such as manual Morse should be similar in all Services with only minor rearrangements and types of component equipments differing.

The purpose of Circular 54-1 was stated thusly: This Circular sets forth the policy and procedures of the Director, National Security Agency, governing the establishment of minimum standards to provide assistance in the planning, construction, and equipping of permanent and semi-permanent intercept stations. Please note the phrase "to provide assistance" which reflects our desire to do exactly that.

Furthermore, it means assistance from the time of initial establishment of the requirement for the station until the installation is put into operation--not confined to trouble-shooting after deficiencies occur.

Under "General Instructions" it is stated, "The Military Departments and other Departments or Agencies of the Government authorized to participate in the National COMINT effort will adhere to the minimum standards prescribed herein in the future planning, constructing, and equipping of permanent and semi-permanent intercept stations." I would like to emphasize the word minimum in that statement. Our interpretation is, "You may add more, but anything less will be unacceptable." In other words, we do not wish to place any limitation on technical improvements or initiative on the part of the Services.

Other General Instructions are, "Where existing intercept facilities fall below minimum standards as prescribed herein, the Governmental Department or Agency concerned will submit plans to NSA indicating how these facilities can be made to conform with minimum standards" and, "All future changes of existing permanent and semi-permanent intercept facilities will be made in conformance with standards and criteria prescribed herein." It is recognized that considerable work, effort, and time are necessary to accomplish this review and planning phase. I know personally that the Air Force Security Service is making rapid progress in achieving the program, and full cooperation has been rendered by the Army Security Agency and the Navy. I would also like to state that if there is any assistance this Agency can provide on this project, we would be glad to do so.

Section IV of the Circular has the title, "Minimum Facilities and Equipment Standards". The first item under this section is

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antennae, a subject on which books have been and will be written, but that I must mention only briefly. In the initial negotiations and planning for establishing an intercept station, sufficient land must be obtained to permit the installation of a basic arrangement of specified broad-band antennae covering the target area designated in the general coverage mission. In addition, area must be provided that will provide space for installation of special antennae to fulfill unique requirements that may occur. It is our belief that no engineer or group of engineers is able to design an antenna field that will meet all requirements since the intercept problem is dynamic, and not a static operation. We have also specified in Circular 54-1 that sufficient material will be authorized to the stations to permit erection of a rhombic antenna and four simple types of antennae to be utilized at the discretion of the commanding officer for emergency or experimental purposes. However, any changes deemed desirable in the basic antenna plan as a result of such experiments will be processed through the normal Service channels for approval. Other investigations being made to improve the efficiency of station operation include one that will provide a simple method of checking the characteristics of the antennae to determine faults and need of maintenance.

The next item is what I consider the weakest link in the intercept facilities system, namely the RF distribution arrangement. It is the place where errors, mostly committed by the human element, prevent the peak signal from arriving at the headphones of the operator. It is the continuing alibi of the operators who cover deficiencies by stating "They gave me the wrong antenna" or, "They have cascaded so many multicouplers that the signal is too poor to copy." These conditions are sometimes true, which brings up the point that the men selected or authorized to do the patching at the RF racks should be experienced and reliable and not the eight ball who normally, after snaffing everything else, receives the RF assignment.

Evaluations of multicouplers are continuing. An appendix to the Antenna Book was issued detailing methods of connecting multicoupler types CU 119 and CU 168. If such methods are adopted, maximum utilization of this equipment will be achieved. We are also investigating an Antenna Switching System which appears to have very promising features. If tests prove it is acceptable, it is estimated that 90 percent of the patching at RF racks will be eliminated. If desired, up to 20 antenna appearances can be provided to the receiver with the operator making the selection of the one giving him the strongest signal. The R/D development of multicouplers for the VHF range is being monitored.

#### MANUAL MORSE POSITION

Console development by Services.

R-390 Receiver being delivered to the field.

Eliminates requirement for frequency meter.

Test of carbonless paper.

#### AUTOMATIC MORSE

Dual diversity required.

FSK converter added to standard position.

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AFSAV D48 High Speed Morse Translator ready for service testing.

Model 28 printers furnished in lieu of high speed.

RADIO TELEPHONE

Development of adequate recorder for this purpose being carried on by R/D under high priority.

Standard position design for DSSB being checked at USM-9.

RADIO TELEPHONE CONT

Installation of 2nd DSSB at USN-11 being considered.

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EO 3.3(h)(2)

RADIO PRINTER POSITIONS

Undulator tape recorder added to single channel position to back up certain types of single channel transmissions.

WFSK converters required for [REDACTED] positions and the two-channel printer positions.

AFSAV 39 Rekeyers being specified for multiplex positions so that both sides of DFS can be obtained.

New concept for use of Model 28 printers to obtain on-line page copy from printer positions.

Eight Model 28 printers to be installed in field as initial effort. Does not eliminate recording requirement on [REDACTED]

FACSIMILE POSITIONS

A recorder is specified to back up on-line intercept due to inadequacy of facsimile equipment to lock in and maintain synchronism with transmitting station.

Diversity receiving requirement has been deleted as copy may be degraded as a result of diversity switching of the receiver.

DIRECTION FINDING

A study is being conducted and a Circular will be issued detailing standard siting procedures for D/F.

RFP

Mobile unit being developed.

First models of automatic developer available for service test.

MOA

Although the AFSAV D31, as a unit of equipment, has operated satisfactorily, the results obtained from that method of operation are not acceptable. A new concept for the identification of morse operators is under consideration.

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That concludes the remarks concerning Circular 54-1, but I would like to summarize a few facts which are considered vital for the efficient establishment and operation of an intercept station. These are:

1. The results of a site survey should provide the information as specified in the Site Survey Manual and the Terms of Reference concerning the project.
2. NSA must furnish the general coverage requirements expected from any specific geographical location.
3. Continual coordination of plans for a new or augmented intercept station must be effected with the Director, NSA, on a current basis.
4. Sufficient land area must be obtained to permit the installation of the number and types of antennas to cover the desired targets and to permit flexibility in rearrangement or addition of antennas to meet changing requirements.
5. The installation of facilities should be made according to best engineering practices, and meet the minimum standards presented in NSA Circular 54-1.
6. Constant surveillance should be maintained over the equipments in the stations with obsolete or inadequate items replaced as expeditiously as possible.
7. Field personnel should be encouraged to forward their ideas and opinions for improvement of stations.

#### F. DISCUSSION

CDR Chiles: "What type of input does the morse translator operate from?"

Mr. McIntire: "It is an on-line equipment into which the signal is fed from the receiver."

CDR Chiles: "If it could be made to operate on both manual and high-speed morse and from magnetic tape input, then one equipment would meet a big requirement. Otherwise, we will have to have a number of them."

Mr. McIntire: "The original intent and purpose of establishing a task for the development of a morse translator was to meet the very requirement you have brought up."

Mr. Small: "Will it take a tone input?"

Mr. McIntire: "Yes, it will."

CDR Nicholson: "I wonder if NSA realizes that if these standards had gone into effect two years ago they would have delayed several projects. Also, I wonder if there could not be several levels of minimum standards or minimum requirements. I feel that you should consider that minimum requirements 50 miles from the Iron Curtain are considerably different from minimum requirements for Ft Meade."

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Mr. McIntire: "As I stated, Circular 54-1 is for permanent and semi-permanent installations. Circular 54-1 states that you may have a unique requirement which would never be covered by 54-1."

Mr. Kirby: "I feel there is a great need for better guidance in all aspects of the U. S. COMINT collection effort. There have been some outstanding examples of what has happened because of lack of standards and lack of coordinated planning. There has been too much effort wasted in crash projects and crash productions. What we are saying now is, 'Let's sit down and take a look at equipment and operating requirements and the design for fixed installations so that we can get the best idea of what permanent and semi-permanent installations should be like.'"

The minimum standards promulgated by NSA delineate the minimum criteria which must be met for satisfactory COMINT operations. Further, these standards are based upon normal situations involving the normal type of personnel engaged in the U. S. COMINT operation. I know that it is argued that satisfactory intercept operations have been performed with facilities and conditions of a lower order than the specifications in the NSA minimum standards. I can only agree that there have been instances in which highly skilled operators have done an excellent job with almost no facilities. I would ask however, 'How much better could these people have done if they had had really adequate facilities?' In addition, on problems such as radio printer and other non-morse assignments requiring special items of equipment, I am firmly convinced that we cannot operate satisfactorily with less than the minimum specified.

The steps in producing minimum standards to cover major aspects of the collection effort are, I believe, relatively simple and straightforward. We feel that we must first look at the types of transmissions in which we are interested. After determining the characteristics of these transmissions we must next establish the requirements of the intercept system considering all basic items of equipment necessary to permit satisfactory intercept of the desired signals. Finally, we must examine the equipment set-up to determine what operations must be performed to operate the equipment, and how many operators are required to perform these operations at any given time. It is our intent, therefore, to produce minimum standards, or minimum specifications, for

1. The equipment required for manual morse, various radio teletype, radio telephone, and other types of positions.
2. The procedure for operating this equipment in each type of position.
3. The minimum numbers of personnel required at the intercept position to operate basic equipment in accordance with established procedures. The determination of the total personnel requirement at a station (to provide for leave, military duty, rotation, etc.) will be a responsibility of the Service cryptologic agencies.

I wish to make it clear that NSA standards will specify only the number of operators required at the position at any given time to operate the various types of intercept positions.

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Since the objective of the U. S. COMINT collection program is to provide useful and usable raw materials for further COMINT processing, what we want to do is to provide guidance to the interceptors to help them to produce final results that meet analytic requirements.

Too often in the past NSA has not spent enough time determining the best procedure to meet collection requirements, and then spelling the procedure out in sufficient detail to insure a minimum of misunderstanding. We now propose to clarify requirements and procedures in writing. If the interceptor uses the equipment which is required, and performs the necessary operations, then we can all be assured that the results will be more satisfactory. This is the purpose of minimum standards."

Mr. Clark: "There is nothing in the Circular which says that because a station doesn't currently meet the minimum standards we will wash it out and not utilize it."

Mr. Kirby: "Minimum standards are a highly desirable thing to establish. It gives the establishment something to work for toward improvement. The goal of reaching minimum standards is, in my opinion, a highly desirable one."

Mr. Small: "I think that quite a few of us here would like to hear more about the RF switching device."

Mr. McIntire: "I am not sure if the information has been distributed to the Services, since complete data hasn't been furnished our Agency."

[redacted] development project for a switching system that would meet the operational need. This resulted in an equipment utilizing multicouplers, the outputs of which feed into the switches that are, in turn, remotely controlled by the operator from his position. The actual contact is achieved by a plunger in a "T" connector activated by a telephone relay."

Mr. Small: "How many control wires are there?"

Mr. McIntire: "One control cable is all that is necessary, although the number of pairs may vary. In addition, you would not want to give more than five appearances to the normal manual morse operator."

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EO 3.3(h)(2)

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## TOPIC 9

## SPECIAL IDENTIFICATION TECHNIQUES

## ROUND TABLE DISCUSSION "A"

After a few welcoming remarks by the Chairman, Mr. Norman Boardman, Ass't. Chief, Office of Collection, the floor was turned over to Lt. W. H. Wesper, USN, Chief, NSA-614. Lt. Wesper thanked the European participants in the recent project "Moby Dick" for their cooperation and assistance. A chart was passed around showing how well the balloons had been tracked. (Four handouts had been prepared and were available for retention by all in attendance. These handouts included (1) a breakdown of the thirteen existing organized DF Nets showing the seventy-seven sites now in operation. (2) The present status of all RFP and MOA equipments and their locations. (3) RFP problems in production order by stations and (4) an organization chart of NSA-614.) A report was made on the concept and status of Technical Management Board project No. 15 (DF Standardization). Special emphasis was placed on the nine circulars which TMB-15 had recommended to be drafted. These nine circulars were enumerated. A report of the two Net splits which had been effected late in 1954 was detailed. These include the 6920th S. G. split into a North and South Net on 1 October 1954 and the ASAFE split into a North and South Net on 15 December 1954. A brief report of the follow-up actions taken as a result of the UK/US Technical Aids Working Party late in 1954 was then given. Details on personnel training courses afforded the services by NSA on DF and RFP were given and the group was reminded that the Services were not making adequate use of the courses available. Homogeneity of SIT assignments was touched on. Future planning regarding IBM processing of DER's both here and at Field Headquarters, utilizing tape to card methods, was pointed out by the speaker. The current status of the two proposed DF Nets

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was given. These included the proposed [ ] DF Net and the [ ]. LCDR. Groundwater, USN of USN-40 asked if there had been any thought given to the establishment of a [ ]. The answer given was negative but he was assured that his problem would be given every consideration. Mr. Groundwater then asked if there were any DF requirements for [ ]. He was told there was not. There is DF at [ ] but that equipment was destined to be [ ] in the very near future. Mr. Boardman of NSA-60 interrupted to state that Mr. Groundwater's problem regarding DF assistance was something that could be discussed with [ ] and perhaps come up with something that will be satisfactory in terms of indicating a requirement and implementing it. Mr. Boardman then asked the conferees if they would like a few minutes of further details on [ ]. Upon agreement a brief synopsis of the project was then given by Lt. Wesper. Major V. Kellan USAF, 6910th S. G, then asked what cryptologic system would be used on the proposed [ ]. [ ] He was told that plans had not progressed to a point where such details had been finalized. Maj. Kellan was told however that NSA would press for [ ] [ ] were informed that Lt. Wesper and Mr. Ackerman would both be in Europe late in April to participate in the proposed Tri-Service Conference being conducted by NSAEUR and would be available then for further questions or information on this and other subjects.

Following Lt. Wesper's presentation on Direction Finding, Mr. Ackerman, NSA-614, spoke on "The Present Status of RFP Equipments in the Field and Present Status of the NSA RFP Library." The second portion of the lecture was devoted to bringing those present up to date on what was being

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done to increase the efficiency of the AFSAV D-17 equipments, including proposed modifications.

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It was noted that NSA at the present time is receiving

The participants were briefed on the status of the AFSAV D-37

and were told that there would be a few models available probably at the end of June 1955. One of the equipments is scheduled for the ASA lab, one for NSA lab and the remaining equipments for service testing in the field. The results of the AFSAV D-37 can be cross-matched with the film from the AFSAV D-17.

The cost of paper film is one-third that of

LOC 420 acetate film (the type being used at present) and will result in a savings of approximately \$350,000 per year.

Col. R. C. Huggins, USA., ASAFE asked if there were any plans for the

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expansion of [REDACTED]. The question was answered by stating that [REDACTED] It was further explained how USM-3 has been successful in a combined SIT effort.

A second question was asked pertaining to the prerequisites of a person being trained in RFP. The answer was, "A background in T/A and radio intercept was desirable but not mandatory."

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- A. TOPIC NUMBER: 10
- B. TOPIC NAME: COMINT END-PRODUCT REPORTING
- C. TYPE OF SESSION: ROUND-TABLE DISCUSSION
- D. CHAIRMAN: MR. WILLIAM HUNT
- E. HIGHLIGHTS:

1. The round table discussions opened with Mr. Hunt, NSA-065, outlining some of NSA's basic principles of COMINT End-Product Reporting. He outlined briefly the guidance given by DIRNSA during his opening remarks to the conference delegates. This guidance referred specifically to the goals NSA should strive for in the long term planning. The Director urged COMINT producers to produce meaningful COMINT which would assist Military Commanders and get away from volumes of statistics to the maximum practical extent. It was recognized that NSA produces COMINT information for further evaluation by consumers and in such a situation the NSA end-product passes through a middle man before going to the Commander who uses this material directly. Mr. Hunt informed the delegates that DIRNSA views with concern the unnecessary amount of technical information and T/A techniques which are included in NSA end-product reports. He indicated that action would be taken to reduce this unnecessary technical information.

2. The following basic principles of COMINT reporting were outlined:

a. Exploitable COMINT: Timeliness

COMINT must be provided on a timely basis if it is to be exploited by commanders for tactical operations. It must be provided in a manner that will permit ready utilization of the material. A lower degree of professional accuracy or completeness is acceptable in order to achieve the element of timeliness.

b. Strategic COMINT:

Strategic COMINT is also valuable to military commanders. In this category falls the target information, enemy intentions, enemy economic stability, communications, etc. In this nuclear age when aircraft achieve and exceed the speed of sound the "strategic" should not lag the exploitable except to the extent acceptable to produce all-source detailed analysis of the enemy targets.

c. Echelons of Reporting:

For economic reasons the resources of NSA must be very carefully apportioned in order to meet the requirements of consumers at all levels i.e., field theater and ZI. This requires that all echelons must produce COMINT in a format and in such detail as to satisfy all consumers without the need for regurgitation of the original material. Further, it was pointed out that while field units should support their authorized military commander, they should not attempt to do the consumer's work by unnecessary correlation, compilation etc., even though the field processing unit considers it has the capability to do this. NSA reserves the right to decide how the facilities and manpower engaged in COMINT production world-wide will be tasked and apportioned in order to produce the maximum COMINT efficiency for the U. S.

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~~TOP SECRET EIDER~~d. Spot Reports:

In regard to spot reports, it is difficult to give a precise definition of a spot as each reporting authority would differ, in varying degrees, on the material to be contained in a spot. However, NSA encourages reporting by spots any item considered significant and whose final receipt by consumers is important. It was stated that an error on the side of reporting spots was preferable to erring on the side of delaying what may be valuable information to the consumer. An acceptable definition of a spot report was outlined as "Any COMINT development whose significance may have an immediate affect on military operations and/or any item which a commander requires reported to him expeditiously."

e. Technical Information in End-Product Reports:

Technical information in COMINT reports must be more rigidly controlled. USCIB Directive #4 contains a statement to this effect. Attention was again drawn to previous statements by the Director on the necessity to control volumes of unnecessary technical data going to consumers and especially publishing T/A techniques in end-product. Consumers had originally been engaged in evaluating COMINT against other sources of intelligence, but as other sources of intelligence became more scarce consumers became engaged in evaluating COMINT by evaluating T/A techniques to arrive at a COMINT validity. The responsibility of NSA for placing a validity on COMINT is very clear and it is urged that all producing units should make every effort to safeguard T/A techniques and data. An acceptable definition for technical information is "Any information which does not enable consumers to evaluate a story against other sources of intelligence or provide continuity on unit activity and is primarily a communications intelligence production technique."

f. NOFORN Material:

In view of the various activities of United States Forces throughout the world and in view of U. S. military commitments, which on occasion are not necessarily known to foreign powers, COMINT reporting in these areas is very involved. This problem results from service collateral being available to COMINT producers for fusion with enemy communications reactions to US activities. Further, the raw material from which COMINT reactions to U. S. activities is derived is exchangeable with foreign powers by specific agreement. However, it is possible to avoid any difficulty if certain procedures are adopted. Basically, it is possible to make available to certain foreign powers reactions to U. S. military activities when these reactions are based exclusively on analysis of enemy communications material which is exchangeable with these foreign powers by specific agreement. No mention must be made of the identity or suspected identity of the nation or units involved in such activity. Supplementary reports may be made to authorized consumers as appropriate in a restricted report series, filling in the collateral details or COMINT details which could only be derived from fusion of Collateral and COMINT.

g. Cross-servicing:

While cross-servicing has only recently come into existence, the results so far are encouraging. We have seen excellent demonstrations recently in the Far East where, regardless of the service producing the material, the end-product has been made available to the commanders who require it. A lot more has to be done in this field and the ultimate goal is to have individual services produce and disseminate their end-product as required to their counterpart service, which in turn will make this material available to its commanders without the necessity of regurgitating it into another report.

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~~TOP SECRET EIDER~~3. Open Discussions - General

During open discussions on reporting Col. Weeks, Commander 6920th Security Wing, stated that he would welcome an NSA critique on reporting from his organization, pointing out the errors and suggesting how to improve the product. NSA pointed out that this was currently being done (to a limited degree) by wires to individual units when major errors were noted.

a. Technical Information:

On the subject of technical information in reports, some field personnel pointed out the difficulty of controlling technical information when consumers wore two hats, i.e., a technical representative and an intelligence consumer. Col. Pulling, NSAUK, suggested that this problem was more acute in the ZI than in the field. Normally field consumers did not insist on technical details to any great extent. He went on to say that it was difficult to be in a position of servicing a consumer and yet not get requests for statistics and details. He suggested that it was not possible to resolve this problem at this time and at this meeting. It should, however, be resolved sooner or later. Mr. Zaslow of NSA-062, suggested that, on occasion, statistical reporting was necessary and consumers who require such reports should get them. He suggested that COMINT producers who saw volumes of unnecessary and unrequested statistics and technical information in their end-product reports should conclude that they were producing bad reports and should take action to correct it. He further pointed out the security aspects of wide dissemination of technical techniques and data and urged closer contacts with consumers to find out what they wanted and give them the material in an acceptable form. Col. Weeks stated that, since there was little intelligence other than COMINT, and since it is an intelligence officer who places the commander's requirement on the processing unit, a process of education or just plain flat refusal to supply technical information is the only way to combat this problem - a stand must be taken sooner or later. Mr. Buffham of NSA-062, stated that there was no question about giving technical data to consumers where a bonafide requirement existed. LCDR Thompson of USN-39 stated that NSA also wanted certain technical details in end-product reports. Mr. Hunt stated that technical channels existed for field processing units to forward technical data to NSA and there was no reason why technical data should be in end-product reports. Col. Peterson of ASAE took the position that certain technical details were intelligence items and as such should be reported. These included callsign changes etc. Col. Weeks suggested that the meaning of the callsign change would be more appropriate to report than the change itself. Col. Peterson went on to say that it was the commanders responsibility to interpret the intelligence information and generally the commander was anxious to have the producers' opinion of the item - he would be foolish if he didn't! The second point made by Col. Peterson was that the emphasis on reduction of volumes of paper applied more to NSA internally (ZI) than to field units. Another point made by Col. Peterson referred to the generally accepted philosophy of NSA in preparing reports by field processing units to satisfy all other echelons of consumers. He considered this bad philosophy, because in his opinion his immediate consumers may have varying requirements for the same basic information and may require this information packaged in different ways. He considered that NSA should package the COMINT in different ways for the consumers, since it was NSA's business to support them, and, since they have legitimate requirements for it, he considered this was not duplication. Mr. Hunt stated that while NSA agreed to meet consumer requirements to the best of its ability, there were no additional personnel being made available to the COMINT industry and found it difficult to understand how we

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could go on providing several consumers with the same basic information in different ways and still say it was not duplication. He was surprised there was not more support for general and broad formats to meet all consumers needs. Col. Peterson agreed to the principle of broad formats but stated that the precise format should be prescribed by the consumer.

b. NOFORN Dissemination:

The Chairman invited comments from field commanders on the NOFORN dissemination (see para 2 f above). Col. Pulling, NSAUK, commented that very often material was marked NOFORN which should be made available to the British in COMINT or other channels. He suggested that NOFORN was often used to prevent material from going to SHAPE. He mentioned the existence of an agreement, entitled the "Burns Templer" agreement which dealt with the exchange of intelligence between US and UK. Mr. Buffham of NSA-062 stated that NSA has no problem in determining whether an item is NOFORN or not. This problem generally arises in the field. When a COMINT unit gets a piece of information from one of the US collateral sources, they must at that time determine whether this information is exchangeable, with British Commonwealth nations with whom the US collaborates. Col. Pulling suggested that the problem may even be, "Is the information NOFORN or US/UK Eyes Only?" He stated that possibly a resume of the Burns-Templer agreement may be helpful. LCDR Thompson suggested that perhaps some people were putting on NOFORN when in effect they wanted to give an item restricted distribution. CDR Chiles of USN-39 pointed out that during alert declarations etc., there was not much time to check exchangeability of collateral. Other comments and suggestions for labelling disputable collateral continued without any worthwhile points being made.

c. The round table discussion concluded at the expiration of allotted time.

4. Conclusions and Recommendations:

a. The round-table discussion did much to lay some basic principles before the delegates. These principles are old and established and should provide goals to attain in the future.

b. In regard to the use of technical information in end-product reports the conferees with few exceptions agreed that it was not desirable to put technical material in reports except to the extent practicable for understanding the report content. All agreed, however, that there was sometimes a very fine line between technical and intelligence information. Again, there appeared unanimous agreement that COMINT is now the only source of intelligence in some areas, and practically the only source in others. Accordingly, consumers are mainly involved in evaluating COMINT against COMINT and hence the requirement for technical details. Field representatives indicate that the problem is less acute in the field, where consumers do not maintain large intelligence shops. The general opinion appears to be that there is insufficient guidance both in NSA (ZI) and at field processing centers on the subject of technical information in end-product reports.

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It is recommended that a firm NSA policy on the use of technical information be established and promulgated.

c. The NOFORN problem, while it originates by the field so classifying material, is magnified when the question arises regarding dissemination of this material by NSA to collaborating centers. COMINT reports resulting from fusion of enemy communications reactions with NOFORN US operational collateral presents no problem when the enemy reaction is not sufficient to make a story. It is only when enemy communications reaction tells a story and the raw traffic is exchangeable with foreign collaborating centers that the fused reports containing US sensitive collateral is difficult to conceal.

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~~TOP SECRET~~MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER: 11
- B. TOPIC NAME: THE TECSUM AND RELATED TECHNICAL REPORTS
- C. TYPE OF SESSION: ROUND-TABLE DISCUSSION
- D. CHAIRMAN: JAMES W. PEARSON, CHIEF, STAFF TECHNICAL GROUP,  
OFFICE OF COLLECTION:
- E. HIGHLIGHTS:

- I. Prepared handouts relating to the subject topic were distributed to members comprising the round table, and the session was called to order by the Chairman promptly at the scheduled time 1015, 30 March 1955.
- II. The Chairman announced that aside from the principal item on the agenda for discussion, for which handouts had been distributed, there was one additional item which probably would be of interest to the table. The Chairman then proposed that this particular item be recognized and disposed of before proceeding to the main topic discussion.
- III. There being no objection voiced, the Chairman then invited the principal representing ASA to expand on the item which had been suggested by ASA concerning

"Technical Formats: Desirability of forwarding samples of technical formats to the field for comment prior to implementation".

In general the ASA principal replied that ASA and its organizational elements in the field have a definite interest in what comprises the content of technical reports which are forwarded by the field to NSA in response to requirements placed on the field by NSA Circular or other authorized series. The ASA principal then recommended that NSA adopt the practice of forwarding to the field, prior to implementation, samples of technical formats for which NSA determines it has a requirement. The purpose of this recommendation was two-fold: (1) often-times the field, by virtue of close operational touch with given technical situations, is favorably situated to suggest modification to the NSA proposed format which could go even further toward satisfying the NSA requirement, and; (2) depending upon the scope of effect the sudden introduction of a new technical requirement would have on a given field unit in terms of personnel man-hours, and facilities/equipment utilization, field review of a technical report format prior to implementation would enable parent cryptologic agencies and respective field units to plan and arrange to meet such a new requirement in an orderly fashion.

At the conclusion of the ASA principal's remarks the Chairman solicited discussion. There being no table response, the Chairman assumed tacit consent on the part of other principals assembled.

The Chairman expressed thanks to the ASA principal for his explanation and responded to the recommendation generally as follows:

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SUBJECT: Report of Chairman, Round Table Discussion "A", Topic 11, NSA Field Commanders Conference, 30 March 1955

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E. Highlights of the Session

III. (cont'd)

The adoption of a policy of review of technical report formats by field units prior to implementation for the purposes outlined in the ASA principal's explanation does not seem to be unreasonable; undoubtedly this can be done whenever conditions and circumstances permit. It is estimated that the governing factor in each case will be that of "time". In any event this proposal will be presented to the appropriate PROD authority for consideration and implementation where practicable.

- IV. The ASA principal acknowledged the response by the chair and the chairman then directed the attention of the table to the main topic at hand, "TECSUM and Related Reports". As a point of departure the Chairman deemed it appropriate to define TECSUM principles and TASUM principles and he announced, that for the benefit of the large number of persons in attendance who were not principals of the table but who were entitled to a complete rundown by virtue of their interest, he would read aloud from the prepared handout. Principals were invited to take notes in preparation for discussion to follow. The Chairman then presented the main topic to the table as follows.

V. TECSUM and Related Technical Reports

a. TECSUM Principles

Need for the TECSUM

1. A TECSUM properly prepared and forwarded on a timely basis is the most effective means of enabling the next echelon of analysts to fulfill their responsibilities in the overall reporting program. It eliminates the necessity for receipt by electrical transmission of large volumes of traffic and results in the production of original reports and comments on reports from field units much sooner than would otherwise be possible. A TECSUM can also save considerable time in the preparation of studies and reports since it eliminates much of the preliminary work and presents an orderly arrangement of data in a concise but comprehensive useful form. It can, therefore, be used directly in such analytic functions as the establishment of

and other items of possible intelligence significance.

Effect of Decentralization on TECSUM Requirements

2. Since decentralization of a communications entity changes the emphasis of reporting responsibilities, the requirement for receipt of a TECSUM will be reduced. Receipt of a TECSUM, if one is still prepared to meet field processing center requirements, will

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E. Highlights of the Session

IV.

a. TECSUM Principles

2. Effect of Decentralization on TECSUM Requirements (cont'd)

continue to be desirable. If, however, a TECSUM is discontinued as a result of decentralization, other special reports must be devised to provide required technical data and significant details of lower echelon analysis.

b. TASUM Principles

General

1. The TASUM is that vehicle which provides to NSA a more finished technical product from a field processing center or field processing unit upon whose technical proficiency NSA is willing to rely to the point where more detailed and specific reports, such as TECSUM's, etc., are not required electrically by the National Center. Decentralization of a problem to a given field unit normally produces these conditions.

Need for the TASUM

2. The TASUM will include, in most cases, the substantial analysis background of end-product issued by the processing unit, as well as the continuing analytic developments which do not necessarily result in end-product, in order that NSA and the technical COMINT community can maintain an awareness of the analysis carried on by the field. Frequency of submission, distribution, and formats will vary according to the problem and the unit doing the analysis.

Formats

3. Since the problems decentralized are so diverse both in nature of the problems themselves, and in the degree of solution and continuity attained on these problems, it automatically follows that the formats will also be as diverse as the problems themselves and that the requirements for TASUM's will vary according to the complexity and state of problem solution.

Format Flexibility

4. As a general operating principle, it is desirable to adopt a standardized format for problems which have a homogeneous technical approach and a common state of development. On the other hand, however, a TASUM format may be nothing more than a technical wire or supplement to an intelligence report (depending on the problem) with adequate cross-reference to the corresponding subject.

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E. Highlights of the SessionV. TECSUM and Related Technical Reportsb. TASUM PrinciplesFrequency of TASUM Submission

5. On some problems, technical developments are rare while on others some new developments are always occurring. It will be seen that the necessity for TASUM submission on the former will be less frequent than on the latter. It is stressed, however, that the regular submission of a TASUM does not relieve a processing unit of the responsibility for reporting immediately, by special message, to appropriate authority(ies), technical details of any particularly significant activity or inactivity discovered in the study of intercept traffic.

Requirement by NSA for other Field-produced Reports

6. Where more detailed and specific reports (TECSUM's, etc.) are required by the field unit from the source of intercept, and, therefore, are already available, NSA may ask for copies of such reports (usually by bag). Such a request, however, will never constitute an NSA requirement for the continued production of such reports.

VI. Open Discussion Period

1. Question: 3rd RSM Principal: At present we are required to forward an electrical copy of the TECSUM with follow-up of 3-4 copies by bag. Can you do reproduction down here?

Answer: Chairman: NSA will investigate and unless there is some overriding requirement with which the chair is not familiar the present requirement on you will be modified. It is suggested this be discussed further in conferee time with NSA-93 people.

2. Question: ASAE Principal: What happens when NSA requires TECSUM by bag but field processing unit does not need it or use it at all?

Answer: Chairman: In instances where there is only partial decentralization of an entity it may very well be that NSA will require a TECSUM to cover the non-decentralized problems within that entity. Moreover, it is possible that long range projects or studies at NSA will require submission of TECSUMs. In any event, if such cases now exist, NSA will be happy to investigate and re-evaluate the NSA requirement.

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E. Highlights of the SessionVI. Open Discussion Period

3. Question: 6950th Principal: In a situation where NSA receives either a TASUM or a TECSUM from the field on a given problem of an entity which has been decentralized, why does NSA still require the raw traffic?

Answer: Chief, Field Operations Direction Group: Under decentralization NSA never completely ceases work on an entity. The field is limited in the amount of time it has at its disposal, whereas NSA can afford to spend lengthier periods of time on any aspect. Additionally, because of the cryptanalytic effort carried on at the National Center there can never be any substitute for raw traffic; however, once particular systems are solved and decentralized to the field it is possible that NSA would not require traffic on those systems - each instance would require specific treatment and ruling. Finally, traffic exchange agreements with collaborating centers require that NSA have available sufficient copies of specified traffic to honor those agreements.

4. At this point a rather general discussion developed on topics which lined up closer on the side of Decentralization Concept than on the Table Subject of TECSUMs and Related Reports.
5. Question: Nav Sec Gru Nelm Principal: About Decentralization as such; just what is it? Is there not a possibility that Decentralization is a misnomer inasmuch as all that NSA is doing is to delegate responsibility to the field for reports, but still requires that everything be sent back to NSA. Exactly to what extent will a field unit work in the case of decentralization?

Answer: Combination of Response from the Chairman, the Chief, Field Operations Direction Group, and the Deputy Chief, Office of Exploitation: Decentralization can be effected in at least two ways. Where it has been determined that a field unit has the capability to cope with an entire entity, delegation of responsibility for the entity will ensue. On the other hand if capability exists only to the extent that certain problems within that entity should be worked, then only partial decentralization will ensue.

In the event of complete decentralization of an entity to the field, NSA will rely on the field unit concerned for timely exploitation of the problem. In these cases NSA's concern with the entity at that point is chiefly that of longer term research and study, technical support and technical control.

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E. Highlights of the Session

- VII. The Chairman then invited the table to direct its attention once again to the subject for discussion, inquiring specifically whether there were questions concerning any aspects of the principles of TECSUM and TASUM as described in the prepared handouts.

Immediate response from the table not forthcoming, the Chairman called upon NSA principals to expand on certain aspects of statements contained in handouts. Generally these expansions were as follows.

1. TASUM Formats and Frequency of Submission

A TASUM is nothing more than bringing up to date developments on a problem in order that the next processing echelon up the line can be kept abreast of the status of the problems. It is not a fixed report; it is, however, a professional vehicle for getting across pertinent technical developments observed over a span of time. This span of time may vary; if the technical situation of a problem is a changing one, the TASUM may be required daily, electrically, and in detail. If everything is static, a weekly report may be all that is necessary and may only contain two or three lines. Keep in mind that a TASUM is not a fixed format and that therefore it is subject to change from problem to problem.

2. For your information NSA Washington will not dictate what the field processing unit will require from subordinate elements in the nature of technical background for work in progress. However, NSA might well prescribe the TASUM format it desires to get from the processing unit in turn.

F. Recommendations

- I. It is recommended that the Field Operations Direction Group determine the practicality of making available to the field (and respective parent cryptologic agencies) samples of technical formats for comment prior to implementation (ref. para D, II, III, of this report).

JAMES W. PEARSON

Chairman, Round Table

Discussion "A", Topic 11

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- A. TOPIC NUMBER: 12
- B. TOPIC NAME: OPERATIONS CAPABILITIES REPORTS
- C. TYPE OF SESSION: ROUND-TABLE DISCUSSION
- D. CHAIRMAN: MR. JOHN J. CONNELLY, JR., DEPUTY CHIEF, FIELD OPERATIONS DIRECTION GROUP
- E. HIGHLIGHTS:

The NSA representatives stated that NSA Circular 54-3, which establishes the requirement for Operations Capabilities Reports, was undergoing revision and would shortly be reissued. Lt. Colonel Harpster, USAFSS, stated that the USAFSS had earlier forwarded recommendations for additional entries in the circular and if these had been included in the revision, the USAFSS was satisfied, since it already considered the circular to be a fine document. The NSA representatives assured Lt. Colonel Harpster that the recommendations had been included.

Considerable discussion was generated, principally by various ASA representatives, both as to the propriety of NSA requiring this type information and of requiring it directly from the field units. Concerning the first point, the NSA representatives touched on both the Director, NSA's responsibilities in the COMINT business and on the fact that the Technical Management Board (on which ASA has representation) played a major role in developing the Operations Capability Report. Concerning the second point, the NSA representatives promised a reexamination of the requirement for direct forwarding from the field, but would give no assurance at that time that the requirement would be rescinded.

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EO 3.3(h)(2)~~MEMORANDUM FOR THE RECORD~~

- A. TOPIC NUMBER: 13
- B. TOPIC NAME: CENTRAL PROCESSING TECHNIQUES FOR [REDACTED]  
AND SIGNAL ANALYSIS
- C. TYPE OF SESSION: ROUND TABLE
- D. CHAIRMAN: MR. O. R. KIRBY, CHIEF, OFFICE OF COLLECTION
- E. PRESENTATION: MR. O. R. KIRBY

After the presentation the following discussion took place:

Capt. Godwin: The intercept tape comes into the cryptanalysts who look at the tape as it comes in and file it. They pick out certain tapes that they want to process and send them out to us. We are not logging or accounting for the audio tapes as they come in. Once the tape comes to us we perform purely a processing function. We do not go into the analysis of the signal itself. We merely process it on page copy or in the manner most suitable for the cryptanalysts.

Capt. Godwin then discussed the types of transmissions processed in NSA central processing, referring to the booklet [REDACTED]

[REDACTED] which was distributed to the round table representatives.

Col. Pulling: When you are talking about audio tapes I take it that you get them page printed and the cryptanalyst works from the page print. Is that the process?

Mr. Kirby: Yes it is. I feel that some explanation of the reasons for magnetic tape recording might be useful at this point.

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EO 3.3(h)(2)

When the [ ] we had no means whatsoever for providing equipment suitable for field operation which would give us page print with a representation of the [ ]. We wanted to record [ ] and to preserve the [ ]. We also wanted to bring the recordings back and to reproduce them under controlled laboratory conditions for maximum accurate end results.

[ ]

To permit simultaneous page printing of both sides of the link, we modified some of our own Model 28 printers so that two printers would step together continuously during the play back operation.

The actual processing therefore consists of reproducing the canned signal and producing a page print for both sides of the link simultaneously. We get very accurate representation on page print of what actually happened on the original transmission.

CDR Childs: If the [ ]

Mr. Kirby: No.

CDR Childs: Did you have in mind getting the [ ]

[ ] Couldn't this be done in the field?

Mr. Kirby: This is a good point to bring up. We had no equipment originally to do the job of on-line processing in the field. We had equipment that required continuous attention and considerable maintenance to keep it operating. We did not have a system which we felt we could recommend for field use however. I do not think we want to undertake this type of job with anything less than modified Model 28 printers which will stand up as well as the unmodified printer.

I would like to explain here that we are now planning for an on-line page printing program in the field. We believe that the system which has been worked out here is satisfactory for field use. PROD and R/D have evolved two relatively simple modifications which will permit the installation of model 28 on-line printing at field intercept stations.

The objectives of the on-line printing program as it pertains to [ ] is to secure for the analysts, a printed version of all transmissions. At the moment we must duplicate hour for hour, the time spent at the station in recording the transmission. After this central processing reproduction is completed, the analysts must then study the page prints and decide what they want to use, and what should be filed away. By presenting the analyst with an index of what is on the magnetic tape they can reduce the amount of central processing of actual tapes. Please note that we will require back up recording of the page print using magnetic tape.

Mr. Segal: As Mr. Kirby just pointed out we are going to embark on a new Model 28 program. Before I explain anything about the program, I would like to give a little idea of some of the present intercept difficulties. In the field we have different types of printers, depending on the Service. That is one of the things we would like to get away from. We want to get a standard printer that will be fairly easy

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EO 3.3(h)(2)

to maintain and which will provide a degree of accuracy. We had arrived at the conclusion that with the Model 28 with a few modifications we can implement an on-line printing program which will eliminate the requirement for central processing on a mass production basis, and make the information more accurate and at the same time available for more timely processing and dissemination of the information. Direct printing at the intercept position will provide material in a form which it is more easily exploitable in the field and here at NSA.

When technical and intelligence material comes into NSA it has to be processed in our processing division and then it goes to the using groups. Under the present system there has been considerable delay prior to the information being disseminated both within NSA and in the field. We hope to eliminate this delay by the use of the Model 28. It will also render a more usable product since it will give us an accurate time-space relationship. It will also let us know what is going on on both sides of the transmission between the control and the out-station. It will render direct page print for use for TA personnel in the field.

Mr. Schmidt: In the field stations where we have to make page print we intend to use standard unmodified printers for on-line radio printer systems,

We set this system up with one master and one slave. When the master reaches the end of the line it sends the automatic carriage return and line feed not only to itself but to the other machine. They both go back together so that the lines are always the same on both printer.

The modification eliminates all of the functions. Instead of performing the normal functions like the carriage return and line feed, we just print a character. We have in effect a full 32 characters.

The other type of modification that we are getting into is the modification for the [redacted] It is a little different problem because it is a synchronous system. It uses only one channel. To indicate whether the character in that channel is clear text or cipher, the synchronizing bauds are reversed.

Up to now, the Model 28 with the synchronous motor would give a standard fixed speed. This is not too good for field installation. There is now a series-governed motor available. The trouble with this series-governed motor is that in order to change the speed you have to adjust the governor, turn it on, measure the speed, turn it off, re-adjust the governor and repeat the process. This is not satisfactory for adjusting for speed changes in the [redacted] as it takes too long.

We have been working with the Teletype Corporation on a small variable speed motor which is continually adjustable from outside the case of the printer. You don't have to open up the printer at all. We also expect to have a speed indicating device consisting of a small ac generator coupled to the motor shaft itself. A plug-in meter reads in RPM.

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The models will probably come out with three sets of gears, 60, 75, and 100 WPM. They will maintain speed adjustment within 1% for 100 hours.

The other type will be for search operations where you will be running across different speeds of signals which you want to match. You have all the various international speeds. There you will have a different adjusting spring governor. It won't give you quite the accuracy but you will be able to cover roughly about 40 words a minute up to 115 words a minute.

Lt. Gaschk: Who is going to give us these printers?

Mr. Schmidt: You will have to refer to somebody else on that.

Lt. Gaschk: Our chief aim is to provide the best possible copy on the [ ] We used to have as many as 3 positions back-up on each position for a given station in order to achieve the best possible copy.

I know how necessary it is to get perfect copy. I wish to put this thought in your minds, that perhaps on certain links it would be reasonable to back them up with 2 positions at a given station, or where the adjacent positions are at closely related stations in the same area you can give yourself 2 shots at a time so as to get a composite picture. I know that you do produce page copy from it. Perhaps that is the answer. Perhaps the magnetic tape does give that back-up. Our experience has been such as to indicate that providing for back-up would be a good idea.

Mr. Kirby: That is perfectly true. We don't have the coverage capability at this point to permit duplication in coverage.

Mr. Segal: Right now the Services are not sufficiently lush with personnel that we could afford to do this across the board. Duplicate cover [ ] would have to be on very selective links and very few links at that.

Mr. Brownstein: I would just like to point out a couple of things that we are doing on the long range problem. We intend to get at the problem of increased accuracy of copy, recognizing that it is rarely possible to get multiple coverage on the same station. One approach to the problem is approach [ ] take a recording and play it over 3 times on the same demultiplexing equipment. Only when the 3 copies agree does the cryptanalyst make use of the material. The other approach which we have started and which is new to us, is to get some idea of the garble rate. You know ahead of time that the single channel cycle it is going to repeat itself all the time. Certain patterns are always adhered to. These can be examined and if there are any deviations from standard in the stated patterns they can be identified as garbles.

For multiplex signals an examination of the frequency and amplitude of each baud can give an indication of the quality of the traffic. In addition, we have some work under contract which will carry this idea somewhat further. There are only 2 reasonable things to do. When you demodulate or demultiplex a signal you identify it with a particular baud, mark or space. It is possible by the use of correlation techniques to specify with what degree of certainty something is mark or space. We hope in time to be able to provide the cryptanalyst with an indication of the probable accuracy for every character.

PL 86-36/50 USC 3605  
EO 3.3(h)(2)

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PL 86-36/50 US  
EO 3.3(h)(2)

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EO 3.3(h)(2)

Lt. Gaschk: Are you bringing that out to the field for field testing?

Mr. Brownstein: Eventually we intend to. However there is a long way to go before we put the ideas in the form of equipment.

Mr. Malone: Can the modification of the Model 28 be accomplished as a field change or will it require completely new equipment?

Mr. Schmidt: I wouldn't say that it couldn't be done in the field but we are working with Teletype right now to make it a standard modification. It will, in effect, come directly from them.

Col. Pulling: What is [REDACTED] and how do you indicate line feed and carriage return?

[REDACTED]  
We deliberately drop out all functions such as line feed, carriage return, letters and figures. The machine doesn't shift. It just spaces and prints. When one of these functions comes up we print a special character instead.Mr. Kirby: This is essentially what has been called [REDACTED]  
[REDACTED]

Mr. Neill: On RFP shots which have been taken on [REDACTED] is there any indication of clear text radiation?

Mr. Kirby: At the beginning of the [REDACTED]  
[REDACTED]

We have not

found any similar thing here.

There are some other useful things that came out of the associated study, however because of time limitations I don't want to get into them here.

Col. Pulling: The [REDACTED]  
[REDACTED]

I wonder if there is anyone present who is in position to give the contrary U.S. views.

Mr. Kirby: I would say that it is a matter who you talk to within NSA.  
[REDACTED]~~TOP SECRET EIDER~~

~~CONFIDENTIAL~~MEMORANDUM FOR THE RECORD

TOPIC NUMBER: 14

TOPIC TITLE: TECHNICAL SUPPORT OF THE FIELD

TYPE OF SESSION: ROUND-TABLE DISCUSSION

CHAIRMAN: MR. B. R. BEBB, TECHNICAL CONTROL SECTION, FIELD OPERATIONS  
DIRECTION GROUP

## HIGHLIGHTS:

In his opening remarks the chairman stressed that the extremely limited time available for discussion made it important that the latter be confined to broad field support problems and principles. He then suggested as one possibly very fertile avenue of discussion the growing concept of a need for expansion, both at NSA and in the field, in the direction of a less formal, more specifically directed type of support, such as that exemplified by the NSA technical support letters. That NSA is attaching increasing importance to the future potentially greater value of such informal tailored media, over the more formal mass-produced types of technical reports, is illustrated, it was pointed out, by the fact that other PROD elements are now participating in this program which was pioneered by NSA-90.

At this juncture the NSA-90 representative, Mr. James Pearson, was recognized. He explained the true purpose of the support letter and the NSA view that the maintenance of its content at a sufficiently high standard of quality as to make it of real value to the field unit for which designed was directly dependent upon that unit's responses via a counterpart medium, namely a reverse technical support letter. He emphasized further that it was the NSA conviction that next to the personal visits between NSA and field analysts that are accomplished through TDY trips, the technical support letter exchanges afford the best avenue for a sound analyst-to-analyst working relationship.

The chairman then briefly outlined how NSA-063 had up to the present undertaken informally to encourage field participation in a reverse technical support letter program, rather than formalize a requirement for participation through a circular that might endanger the intended spirit and purpose of the reverse letter and detract from its informal nature.

Captain W. A. Wright, Chief NSAPAC, noted that in the course of his efforts to promote field participation in his area he had found acceptance of the principle as sound, but rejection of the mechanics as extremely difficult to achieve. The chief reasons given for the latter, he explained, were, (1) that the field analysts were already so overloaded with functions directly related to the collection and production of COMINT that they had no time to devote to the preparation of reverse technical support letters, and (2) that the procedure was in conflict with service command prerogatives and correspondence procedures.

The USN-39 representative, CDR G. Chiles, USN, indicated his opposition to a requirement for informal reverse support from his station for reasons practically identical to those advanced by unit commanders in Captain Wright's theater. He suggested that it would be time consuming for a commander to monitor and edit informal letters from unit analysts to NSA to insure that faultfinding with local operations didn't appear in them, and that correct language usage was observed. CDR Chiles indicated further that NSA-39 is completely satisfied with the technical support received from NSA, and that all requirements for informal support exchanges with the latter are met firsthand through the frequent personal visits between USN-39 and NSAFS analysts.

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EO 3.3(h)(2)

The chairman acknowledged the value of such visits, but pointed out that prime responsibility for the support of field units rests with the National Center, and that much continuity can be lost to analysts here if they must rely on the relay, through the NSA field activity technicians, of what is remembered by the latter of all technical verbal exchanges at the many units they regularly visit.

Major V. Kellan, representing the 6910th Security Group, stated that the Air Force had long since indorsed the principle of reverse technical support and queried the chairman as to whether items in that category were not being regularly received by NSA from Air Force field units. Replying in the affirmative, the chairman expressed NSA's appreciation for the active and enthusiastic participation of Air Force units. He advised Major Kellan, however, that the recently issued CIOPs 8-7 and 8-8 had caused some concern in the Agency because they required that AFSS units combine reverse weekly technical notes and support letter material in one document. This would

It was observed by Major J.E. Macirynski, USAF, 3d RSM, that it had been the experience of his analysts that the elapsed time between informal hard copy exchanges is so great that the problems dealt with in their letters often cease to be of current interest by the time replies are received. In this same connection someone made the point that where a report is required, a man with information to submit would be apt to withhold it until he could submit it with the report, thereby causing the information to lose its timeliness.

Mr. Harry L. Clark, Chief NSAEUR, stated that his observations had convinced him that everyone concerned is in agreement as to the soundness of the principle of reverse technical support, and he expressed the opinion that if this is true, NSA should not delay further in issuing a circular requirement for reverse technical support letters from all field units. He felt quite strongly, however, that the requirement should be that they be submitted as often as necessary, rather than with any such frequent regularity as weekly or semi-monthly.

The chairman then asked the principals at the discussion whether there was any strong unanimity of opinion, either in favor of or in opposition to, an NSA circular requirement for reverse technical support letters. The response appeared to indicate a majority in opposition, with the ASAE and USN-39 representatives particularly outspoken. No official NSA commitment was made as to whether such a circular would be issued.

No other major technical support problems were brought up by any of the principals at the meeting, and it is believed that the foregoing represents a majority of the contributions to the discussion.

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## MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER: 15
- B. TOPIC NAME: LOGISTICS PROBLEMS
- C. TYPE OF SESSION: ROUND-TABLE
- D. CHAIRMAN: ROBERT C. BROWN
- E. HIGHLIGHTS OF THE SESSION

EO 3.3(h)(2)  
PL 86-36/50 USC 3605

1. General - The pattern of the discussion was established at the outset by an inquiry concerning equipment which had been shipped by NSA to the USAF 6930 SECURITY GROUP. The discussion thereafter concerned the availability, and/or testing status of certain pieces of equipment in production and in research and development.

2. Specific - The more important of the specific subjects discussed are summarized as follows:

- a. R-220 Receiver - Inquiry on availability of this receiver revealed that production of this item is very limited due principally to the fact that it is still being tested, even though production has been initiated.
- b. The 5UCO Program - This program was discussed as related to the difficulty of obtaining spare parts for the equipment.

NSA's policy on spare parts generally will be in the future that the Services will procure and stock their own, and provide for this procurement at the time the basic equipments are being produced.

- c. Model 28 Printer - Adoption of the Model 28 Printers by the Services generally was discussed from a funding aspect. NSA indicated that every assistance would be furnished to the Services in their efforts to obtain the necessary funds. The value of the Model 28 Printer from an operational standpoint was elaborated on by one of the PROD conferees with implied agreement by the conferees that for intercept purposes this piece of gear was superior to that presently in use.
- d. NSA Catalog - The publication of the NSA Catalog was discussed briefly by the Chairman and it was pointed out that an effort would be made to identify those unique items that NSA would procure for the Services in the future. A question was posed on the cross-reference of items appearing in the NSA Catalog to the new general cataloging system. This, it was indicated was planned.
- e. Six-Part Intercept Paper - An inquiry was made on possible use of carbonless paper for intercept purposes. The Chairman indicated that the possible use of this paper was under investigation by NSA, and the Services would be advised of the results. In fact, a quantity would be sent to field stations for test.

3. Several other items of equipment were discussed but for the most part the discussion revolved about operational rather than logistics considerations.

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## F. PROBLEMS THAT CAME TO LIGHT

1. One of the problems advanced by the Chairman concerns the difficulty attendant upon getting equipment to the field rapidly enough to meet unexpected situations that develop on a crash basis. It was pointed out that although this could be overcome by more realistic planning, that this was not the complete answer. It was pointed out by one of the conferees that closer coordination should be effected between NSA and field activities. One incident was adverted to but apparently there were extenuating circumstances.

2. There were no other major problems discussed, and no concrete solution to the problem presented by the Chairman could be foreseen by the conferees in the absence of specific details concerning procedures followed to meet crash situations.

## G. RECOMMENDED ACTIONS

Nothing specific was recommended. It was generally conceded that coordination of logistics matters could be effected with a greater degree of efficiency by all concerned. The Chairman stressed the fact that NSA was prepared to assist field commanders with all of these logistics problems, and invited comments and recommendations on pertinent logistics problems that may possibly be resolved by NSA Washington.

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TOPIC NUMBER 16  
 TRAINING - PROBLEMS AND PROGRESS  
 GENERAL MEETING

CHAIRMAN: Mr. S. L. Patterson  
 Chief, TNG Division

SPEAKER: Dr. Sydney Jaffe  
 Asst. Chief, TNG Division

Some day another message like the "Winds Message" may for a few seconds flash through the air. If and when it comes, we want to get it. We want to understand it and we want to be able to act on it. The difference between getting that message, or missing it, could be, as I needn't tell you, the difference between survival and annihilation for a lot of people.

When the message comes, if it comes, what is our chance of finding it? The answer to that depends, I know, on a succession of complex factors, but finally all of these complexities end up on the shoulders of one man - the man on the set, the set that is supposed to be on the transmitter sending the message. If he misses the message, chances are it is missed forever.

Who is this man likely to be on whom we put this responsibility? Is he likely to be an interceptor of long experience, thoroughly trained to do his job and happy to be doing it? Or is he likely to be some nineteen year old boy, not long away from the farm or the city street, just out of a school that tried to teach him something he found deadly dull, and his mind full of nothing but how soon he can get home again? I think that the way things are today, the chances are much better that this boy is the one on whom we are placing our trust.

Now, most of the time at this conference has been, and will continue to be, devoted to difficult problems of technique and procedure.

I think it may not be amiss to devote at least a short period out of this week to focus our attention on this problem - the problem of how we train our young operator and how we can provide him with leaders fully capable of giving him the guidance and support he needs.

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From everything that has been said here so far, and from what we all know about our problems, I think the fact emerges, that, quite literally, the success of our mission rests on the success of our training programs. All of our plotting and planning will be to no avail unless we can provide and maintain a force of men who are capable of doing our job.

This concern is, of course, not unique to us in the cryptologic enterprise. We share with all segments of the military and civilian establishments the need to have available a corps of highly trained and effective men who can not only carry out our responsibilities in peace-time, but who are being prepared for the even greater tasks that will face us if we ever go to war again. It is a problem we share, certainly, but in our case the problem seems especially acute. It is especially acute because for the most part we must have men trained to a degree of competence not required in many other operations. In our case, more than in most, mediocrity can be suicidal. And what complicates the situation still more, the skills in which we need experts can very often not be found in the civilian world, nor will they be in many cases of much use to men when they leave the Service.

The problem of keeping a really elite corps on a war footing faces us today - in an era when the Armed Services as a whole are extremely worried about how to attract and hold competent people. You are probably familiar with the work of the "Ad Hoc Committee on the future of Military Service as a career that will attract and retain capable Career Personnel" - the Womble Committee. As another indication of the degree to which this problem concerns us, Admiral Carney recently wrote an article for "Armed Forces Management" entitled "Making Navy Career Attractive in Face of Disheartening Obstacles." The obstacles are indeed disheartening. In any case, we have only to read the newspapers to realize the extent of

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the difficulties we face. The number of men coming into the Services is being reduced. The tour of duty for some enlisted men has already been cut. Even officers are available in many cases for periods of less than two years. The re-enlistment rate is tragically low. And there is talk now of some system of universal training which would keep men in uniform for only a few months.

The picture is a discouraging one for a Service that must, if it is to function, have at its disposal a force not just of people, but of skilled technicians and experienced professionals.

The solution to this problem must be sought on many fronts by all who are in any way concerned with the management and maintenance of the Armed Services. But certainly one of the fronts on which we can make useful progress is that of the selection, training and assignment of what manpower we can lay our hands on.

Some of the problems of personnel planning and utilization will be discussed later in this conference. I want to devote my time to a consideration of what improved philosophies and techniques of training can do to help us function in spite of the unfortunate manpower situation that faces us, and even to make substantial contributions to improving it.

It might be useful at this juncture to recall the relationship that exists between NSA and the Services with respect to training in the field of COMINT. I will not quote the exact language of the founding papers, but in essence this is what they provide:

1. The Service Cryptologic Agencies are responsible not only for procuring, organizing and equipping their own COMINT units but for training them as well. There is clear recognition of the fact that training is a function of command, and no disposition to relieve the commander of any of this responsibility.
2. The Director, NSA, is to provide technical guidance and support for COMINT training conducted by the Military Departments.

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3. In order to insure necessary levels of technical competence, he is to establish minimum standards for such training.

4. He is to conduct for the Services such specialized and advanced COMINT training as is found necessary.

Like all other bare statements of law, these provisions have been interpreted in the best light of the people concerned, flesh has been put on the bones, operating arrangements have been effected and policies have been evolved.

Out of the association between NSA and the Services created by the founding documents, have evolved certain policies which have been, for the past eighteen months or more, governing the training efforts of all members of the COMINT community. I would like to review the major items, and then to tell you some of the positive steps that have been taken to give practical effect to them. These policies, I would like to emphasize, grew largely out of the training conference of December 1953 in which representatives of NSA and the Services participated.

1. Inasmuch as most enlisted men will not be available beyond their first enlistment, they should be trained, insofar as possible, to do only the job we expect them to do. They should be sent into the field just as soon as possible so that we can get maximum use out of them while we have them. We can contribute to this end by pin-pointing the training in every way possible. We should eliminate many of the "nice-to-know" subjects, and concentrate on the "need-to-know" material. It would be nice for the Morse operator to be an electronic engineer, but he can certainly get on, and stay on a target, without knowing each electron by its first name.

2. It is a corollary of this proposition that no school should imagine it can so prepare every man that he can step into a

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field station and forthwith carry his weight as a technician. The schools should train only up to a certain point; it must be left to the Commander of every field installation to provide a suitable program of apprenticeship training designed to prepare the student to carry out the specific duties of his station. Stations have their own ground-rules, and methods of operation, they have different missions and even different equipment. The student, trained in a general school, must be carefully led into this new situation. Now, most stations have, in fact, been for years conducting some form of apprenticeship training designed to lead their men from the student into the effective operator stage. We are trying to contribute to the improvement of these apprenticeship programs by giving them official recognition so that a commander will not be tasked on the basis of the presence of men who are not yet effective. Guidance from NSA with respect to this program is contained in NSA Circular No. 41-4, and in Apprenticeship Training Standards. I am pleased to note that the Navy, anticipating the NSA circular, is developing an excellent apprenticeship program.

3. Application of these procedures, of specializing school training and providing apprenticeship training periods, can be successful only if the first enlistment man is properly supervised in the field. Proper supervision pre-supposes a corps of NCO's and officers who are capable not only by reason of their ability as commanders, as leaders, but by reason of technical skill, of directing the efforts of the great body of technicians we need in our business. I won't go so far as to say about the cryptologic service that it is (as one of the characters of the Caine Mutiny said about the Navy) an instrument devised by geniuses to be run by idiots, but certainly as long as it is to be manned largely by novices it must be led by men of experience and wisdom.

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4. To this end we must recognize that a really effective training program can be built only on the foundation of a carefully planned career structure, one that recognizes the realities of the COMINT operations, that provides for an orderly progression through phases of learning and experience and responsibility for officers and enlisted men alike, and that encourages our best men to stay in the Service. In short, we must encourage our men to the continuous increase of their technical and leadership skills, and provide them with every means possible to accomplish this objective. The Technical Management Board has been working on a project to give guidance to the Services on the problem of revising the COMINT career structure. The Services have in general concurred with the Board's recommendations, and we hope that subsequent actions will lead to solutions of the many problems involved.

To sum up, we believe that there are four major policies which govern our planning:

1. That school training should be pinpointed to the requirements of the field operation.
2. That station commands must provide carefully planned apprenticeship training programs.
3. That officers and career enlistment men must be given advanced training in their specialties.
4. That adequate career and promotion opportunities should be created, closely tied to increase in technical proficiency.

I think that if these policies are carried out with dispatch, with determination and with wisdom, we will improve our chances of accomplishing the difficult tasks that lie before us with the inadequate supply of manpower and material available to us, and we may even, by these same means, do something positive about encouraging more good men to stay with us.

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Now, so much for policies. I said that these ideas were subscribed to by representatives of NSA and the Services some 18 months ago. Have we, NSA and the Services together, made any progress toward improving what we all admitted was a far from satisfactory situation in that time? I think we have and even though you may be well aware of what has been done, it may not be without value to review the most significant actions.

I spoke a moment ago about the obligation laid on NSA by the founding papers to prescribe minimum standards for Service training in order to ensure the technical competence of the men in our service. We have interpreted this directive as requiring us first to re-examine the skills that are needed by technicians in every field of endeavor; then to determine to what extent these skills might best be taught in the Service schools and to what extent such skills should further be cultivated in apprenticeship periods at field stations; and finally to interpret these findings to the Services in the form of Training and Apprenticeship Standards. These standards have taken the form of fairly detailed statements of the subjects to be taught and the approximate amount of time believed necessary to cover them. The standards, after they have been carefully checked with the best available opinion in NSA and the Services, are issued to the Services in provisional form. When the Services' comments have been considered, the standards are then issued in final form. The process of complying with these standards is in varying states in each of the Services, owing to local conditions.

While we believe that as large a measure of standardization is desirable in training practices, we cannot fail to recognize that conditions peculiar to the individual Services will continue to make complete standardization impossible for some time to come.

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A number of standards have been issued in final form, others are in various pre-publication stages. These will be issued as soon as the long process of investigation, coordination and review has been effected.

As I said earlier, it was the intent of the powers that created NSA that the Services should be responsible for training their own forces. But they also recognized that in many cases, NSA could and should render guidance and assistance to the Services in the interest of keeping the training responsive to operational requirements, discovering ways of making economies in training programs through pooling resources, and in every way possible giving support to Service training efforts.

In the past year or so, we have placed major emphasis on providing such support to the intercept training activities. I think you may be interested in some of the particular programs that have been carried on.

•

First, the area of radiotelephone intercept: There has been universal agreement that improvement is required in this department. Operators arriving in the field, it is frequently reported, have been ill-prepared to assume the duties expected of them in spite of a long period of training in the ZI. There has obviously been a need for something better in the way of training. Although something better seems to be required for all languages in which radiotelephone transmissions are being intercepted, we tackled the Russian problem first.

Until about a year ago, each Service had a different way of preparing operators.

The Navy's operators received twenty-six weeks of communications training at Imperial Beach, followed by six weeks of language instruction at NSA. Transcribers were officers who graduated from a nine-month Russian course at Anacostia.

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In the Army, both operators and transcribers had twelve months of general language training at Monterey. Graduates of this course might go to the ASA School for further training, some came to NSA, some went to both places and some to neither.

The Air Force sent both operators and transcribers to a six-month language course and then to a five-week specialized R/T training course. This program seemed to give the best results in some ways.

Emerging from this training jumble, several facts stood out: (1) Some men were being over-trained in language and some under-trained in R/T intercept techniques; (2) some types of training were over-specialized and others much too general; (3) except for the Air Force program, the training was not geared to produce a Russian R/T specialist.

In an attempt to produce a reasonably uniform program designed to create operators who could, with a minimum of apprenticeship training carry their weight at a set, we took the following action:

Training of an R/T operator was divided into two phases: the first phase to be a six-months language course with emphasis on ear training and general military vocabulary. For this purpose the six-months Air Force course at the Army Language School was utilized. Certain changes were made in the course to prevent over-specialization at this stage. Army, Navy, and Air Force personnel are now enrolled in this course. In addition, a six-month course was established at the Navy Language School because the ALS could not take care of all the Navy students.

Upon graduation from this phase, Army and Navy personnel report to NSA for three-months additional training. During this phase, the men study R/T intercept. They are exposed, insofar as it is possible in a classroom, to situations simulating those they will meet in the field. They work with equipment as similar as we

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can get to what they will find; they practice tuning in signals under bad conditions; they listen to "live" tapes that were recorded in the field and process them as they will do later under actual field conditions.

We hope that this intensive, tailor-made course will give you operators who can do the job you expect of them after a minimum of apprentice training at their duty stations. We will watch it, and we hope your operations officers will watch it, and tell us what should be done to improve it. In the near future, this course will be moved to the ASA School at Fort Devens. We will then turn our attention to the Chinese R/T problem.

In the field of non-Morse intercept, certain changes have taken place in the past year or so which give promise of improving the quality of the men assigned to this duty, and consequently the quality of the traffic they make available to the analyst.

Until quite recently, the Army alone maintained a formal training program in this field. In the early part of 1954, the Air Force established a school of its own at March AFB in California. These schools have been developing a constantly improving curriculum. Last fall, representatives of NSA, the Air Force and the Navy met at March Field to lay plans for Navy participation in the Air Force School. The plans that developed from this conference were an excellent example of how the strengths of each individual Service can be combined in the interest of the whole national effort. Combining the assets of both Services should give them real help in carrying out their respective missions.

The first Navy students will enter the school at March Field in April. Now, all three Services are in a position to carry out effective training programs for non-Morse operators.

But the training of basic operators, however carefully performed, is not enough to assure that we will have effective operations.

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I referred earlier to the urgent necessity of providing professional guidance and supervision to the basic operator. Even the best school-trained operator will not be able to function long, or effectively, unless his supervisors are in a position to direct his activities and help him improve his operations. With the desire to ensure that we have senior NCO's prepared to act in this capacity, NSA has established at Vint Hill Farms Station, with the close collaboration of ASA, an advanced Non-Morse Intercept Operators school. We attach special significance to this school since it is the first advanced course for NCO's in the cryptologic field. We hope that it will set a pattern, and will encourage the development of similar programs in other specialties. The course as now designed will last for six months. Students will be field-experienced career NCO's in the upper grades. The subject matter will be directed toward the student's professional development and will concentrate on the production of specialists well-rounded in all aspects of non-Morse intercept. It includes many subjects not ordinarily included in non-Morse courses, such as Elements of Electricity, Signal Analysis, Use of Special Identification Techniques, etc. We hope that this program, and others like it, will help not only to provide you with a better staff, but to persuade more men to stay in a Service which promises them such opportunities for professional growth and advancement.

Closely allied to the problem of improving the ability of the operator to find his target and to get a faithful record of what he hears, is that of providing support by the traffic analyst. This problem is especially acute in the case of  operations. As you know, it is often very difficult to identify the stations being monitored. Frequently no callsigns are used, and the traffic must be studied very carefully in order to make the identification. This burden is too much for the inexperienced basic operator to carry; he must be supported by men trained to do on-the-spot analysis.

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There have been no traffic analysis courses which gave sufficient attention to this radioprinter problem. In order to give some help in this field, NSA has prepared a Printer T/A course to be given at our school in Washington. The first class will meet on 4 April. In addition to training of [redacted] and in methods of link identification, the students will be given a rudimentary knowledge of [redacted] an introduction to the operation of a printer intercept operation at Station 1, and instruction in the operations at NSA and the relations between operations in the field and in Washington.

Finally, I would like to say a word about some other programs that are being operated here in Washington for men and officers of all the Services.

First: For some time we have been planning to invite key instructors in the Service Schools to come to NSA in order to see at first hand developments here in their special fields. The purpose of this move obviously is to help keep school training, as far as possible, reflective of the actual operational situation.

Second: As you undoubtedly know, we have in operation now two courses designed to broaden the knowledge about the cryptologic business of field grade officers. We have a four-month course which consists largely of an intensive tour of all the staff and operating elements of the Agency, and a ten-month course which adds six-months of rotating operational assignments, plus a tour of field installations. The former course is operated almost entirely for Majors and Lt Colonels of the Cryptologic Services; the latter almost entirely for Lt Colonels and Colonels who are being assigned to NSA, but the Services have quotas from time to time in this course to use as they desire.

I think that we in NSA have been able to make some contributions to the cause of Service training through the programs I have been

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describing. But I would like to allude however briefly to another way in which we can give support to Service activities: That is, by providing training materials. You are probably aware of the fact that the first textbook on traffic analysis of which we can be proud now is being prepared for printing. It should be published and in your hands this fall. In the field of cryptanalysis, a new, revised, improved edition of Mr. Friedman's "Military Cryptanalytics, Part I" has been printed in tentative form. It too has just been prepared for final printing and will be available to your schools and field stations in a few months. It will be accompanied by a set of problems and a course designed for individual or group study. We have in prospect an entire set of textbooks in cryptanalysis which will take several years to complete. But if you are patient and we stay unatomized long enough you will have them.

In another field, we are turning out textbooks of all kinds in a multitude of languages. Some of these have no immediate prospect of being used, but we are trying to insure ourselves against being caught short in any area from which a blow might conceivably come.

There will soon be made available a set of tapes on which all known communications signals have been recorded. This tape library will be accompanied by a book describing the signals. Copies of the manual and the tapes will be made available to field stations, where they should give real assistance in the identification of signals unfamiliar to the operator.

Finally, I would refer to the accessions list of training materials which we publish from time to time. This list contains documents which we create ourselves or that you have developed, and which we think may be of interest to other members of the COMINT community. You may request these documents under conditions indicated in the listing. We urge you to keep us informed of your publications and training programs so we can help you individually and collectively.

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In summary, we believe that a successful training program must be a balanced one. We may liken it to a four-legged table: shorten any one and things slide off. The four legs of our program are: adequate training for the basic technician, the apprentice in the field, the advanced enlisted technician and supervisor, and the officer. Unless all of these people are properly prepared we will not be able to do our job as we want to do it.

We believe that if the policies and programs I have referred to are carried out by all of us, in NSA and the Services, with intelligence and energy we will make great contributions to the success of our mission.

One last word.

I will freely admit that we do not have today all the answers to all the questions that you can ask, or even that we can ask, about how we can best carry on the vital training programs we need in our business. But we must continue to ask questions and seek answers. There is still much to be done. None of us can rest until we create a permanent corps of specialists, dedicated to the cryptologic mission and fully qualified to perform in a professional manner the task assigned to us.

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- A. Topic No. 17
- B. NSA Overseas Field Research Activity
- C. General Meeting
- D. Chairman: Colonel John J. Davis, USA, Chief, Plans and Policy Division
- E. Highlights:

Presentation by Mr. A. H. Hausman

**NSA OVERSEAS FIELD RESEARCH ACTIVITY****I. INTRODUCTION**

The subject of my talk this morning is the NSA Overseas Field Research Activity. Before describing this activity, I would first like to provide you with a little of the background of R/D's previous experience in the field. I would then like to describe the inadequacy of this effort and outline a plan to you, which we hope will enable the potential which we in R/D have, particularly through contacts with the best engineering firms and government labs in the country, to contribute to the effort which the services are now making in the field.

We in R/D have had experience with research activities in the field in the past, but these experiences have been confined to stations in the United States. With the formation of AFSA, about 1950, we had, and still have, facilities at two Navy Field Research Stations in the ZI. These stations are located at Cheltenham, Maryland, USN-22, about 20 miles outside of Washington, and the other at Skaggs Island, California, USN-26, about 40 miles outside of San Francisco. At Skaggs, we in R/D exercise control of a component of the main intercept station; the remainder of the station being engaged in a normal intercept operation.

The research functions at Cheltenham and Skaggs are the same and may be described under two headings:

Under one heading we have a number of experimental positions which enable us to take to the field experimental equipments and techniques which are under development in our laboratories and try them out at the stations. We can make changes in our experimental systems on the spot, if it is possible; otherwise we can bring the equipments back to the laboratory in Washington, make the changes, and take the equipments back out to the field again. There is, incidentally, a small component at both of these stations which is engaged in the actual development of some of the equipment which we in R/D as a whole are working on.

The other function performed at both stations is what we call "technical search". The term "technical search" refers to a special program for the discovery of unidentified signals, systems, or emissions from which intelligence cannot be extracted by the use of existing operational intercept equipment utilized in routine fashion. This category includes Ciphony, Cifax, Noise Communications, and other signals not identified as to type, purpose or source.

As for our strength in these operations, the Navy Security Group has provided at Cheltenham approximately 90 men. This is considered to be full strength for our operation. The group is broken up into approximately 60 intercept operators and 30 maintenance personnel. At Skaggs Island, the Navy has provided for us with approximately 30 people; 20 intercept operators and 10

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maintenance personnel. We anticipate, in FY 57, an increase in our requirements at Skaggs to 90 men, as we now have at Cheltenham.

Looking back over our past history, it is evident that we in R/D have largely failed to lend the support to you people in the problems which you face in the field. We have analyzed the situation and have come to the conclusion that, fundamentally, the reason for our failure is that we, the engineers, at all levels, are too far removed, when working here in Washington, from the actual problems overseas. We believe that if we can find the mechanism by which we can take many of our engineers to the actual problems, then we will have in large part avoided, in the future, the failures we have experienced in the past. We have selected the Overseas Research Activity as our mechanism for bringing R/D closer to the field.

Now there are a number of technical problems which can be more profitably explored by R/D in an Overseas Field Research Activity than can be explored in the Field Research Activity here in the United States. These problems are concerned with those target signals which cannot be observed satisfactorily at our stations in the ZI. Some of these targets are in the high frequency portion of the spectrum, some in the Very High Frequency, or VHF portion, and some in UHF portion. By going overseas on these problems, we in R/D will be enabled to perform two functions: one, the evaluation of experimental equipment and techniques under actual field conditions, making such changes and modifications as are practicable on the spot, and two, we will be enabled to perform the technical search for, and the analysis of, new and unusual communications signals.

## II. DESCRIPTION OF THE OPERATION

I would now like to describe for you how we expect this field research activity to operate overseas. Some of you here know something of this program, as we have already begun to go into operation in the European theatre. Nevertheless, I believe it would be well to go over the entire operation, even though much of what I say may be redundant to some of you.

Before we became specific in our program, we talked to many people here in NSA, both in R/D and in PROD. We talked with people in the Cryptologic Services here in the states, and we made a trip to Europe to talk with people in the field. As a result, we found that there were six or seven basic questions which continually arose with the people with whom we talked. In general these questions were concerned with: one, the authority and the mechanism, within the NSA-Cryptologic Service relationship, which would be employed to authorize the program and two, with the details of the program. With regard to details, we were asked such specific questions as "To which particular station would we go with these field research activities?" "How would these positions be controlled?" "How would these positions be supported, both logistically and technically?" "What is the timing of this operation?" I will try to answer these questions as my method of describing to you this overseas field research program.

Let us take as our first question, "Previously, why did the NSA Field Intercept Deployment Plan not list R/D type positions as specific requirements on the Services?". The answer to this question is that, in the past, NSA requirements for Research and Development Activities have been made known to the services on an annual basis as a service support function. Therefore, no R/D positions were identifiable in the original intercept requirements submitted to the Secretary of Defense. In the future, however, NSA research requirements along with operational intercept requirements will be submitted to the Secretary of Defense for approval. As a corollary to this question then you may well ask, "Until the R/D type positions are included in the NSA Intercept Deployment Plan, how will the services be permitted to undertake

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this project in the field?" The answer to this question is that, in order to permit this R/D program to proceed, and further, to preclude the necessity for annual programming for support requirements, the Director of NSA is now effecting Change No. 1 to the IDP. The Director has this authority under paragraph 2X of the NSA IDP, which provides for precisely such situations as we are now facing. Now of course a change in the IDP is only partially an answer. A change in the IDP is more a legalistic action than anything else. Being very practical about it, NSA PROD has lifted, and will lift as a temporary measure, operational mission assignments at selected stations in order to make available the space and the people necessary to accomplish this R/D mission.

You may now ask, "What will be required of the Station Commanders in terms of space and personnel at R/D positions overseas?" On the average, we expect to ask, at fixed stations, for no more than approximately 250 to 300 sq. ft. of floor space and approximately 3 men, usually two intercept operators and one maintenance man. Our van operations will normally require 3 to 8 people, a mixture of intercept operators and maintenance men, and only one van. In the case of ASA, the K-53 van is considered typical, and in the case of the AFSS one of their maintenance vans would be typical.

Natural questions now might be, "How will these positions be controlled?" "How will the reporting of the operation be conducted?" The answer here is that both operational and technical control will be exercised by NSA R/D. We have an officer in our R/D group who holds the position of "Officer-in-Charge of R/D Field Research Activities". He represents the controlling element for R/D. He exercises this control in two ways. First, non-routine operational control is conducted through the same element in PROD which exercises non-routine operational control on PROD matters. The question of priority of assignments, NSA (PROD) vs NSA (R/D), is thus settled in NSA, and in this way the Services Commanders are assured of only one channel between NSA and the Services. Routine operational control and technical control involve mainly the tasking of the R/D position on matters which do not require the field commander to take any action out of the ordinary. This control is effected, as described in NSA Circular 50-2, in precisely the same way that PROD effects their routine operational and technical control - to wit, from the Officer-in-Charge, Field Research Activities directly to the Station Commander, with carbon copies to the interested parties. The reporting and mailing of material collected during this R/D operation will be done in the same manner, in principle, as on PROD activities. This is described in NSA Circular 51-11. However, due to the nature of the R/D task, the particular reports required will depend on the task assigned to a particular unit, and hence no standard reporting formula can be given. It should be noted here that technical questions or problems arising in the field as a task progresses, are forwarded

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directly back to the O-in-C, Field Research Activities, using the same procedures as R/D uses in exercising technical control.

Now let us take up the question of support. "How will these units be supported in the field, both logistically and technically?" Logistically, we will ask the services for standard equipments, precisely as PROD asks the services for standard equipment. However, there will be much that is non-standard in an R/D position, and when involved with such non-standard equipments, we in R/D will supply and support these equipments. If we should wish to modify a standard equipment, we in R/D will supply and support this modified equipment. The accountability for R/D supplied equipments will be carried by R/D under an R/D task, in precisely the same manner in which we account for other equipments in our laboratory.

Technical support, in an R/D sense, is something quite apart from technical support as is usually denoted in a PROD sense. We propose to provide the R/D type of technical support to these positions by having engineers from our labs make periodic and frequent trips to the field to work along side the personnel on the problem. Sometimes the personnel supplied by R/D will be civilians, sometimes they will be military. Sometimes they will be officers, sometimes they will be enlisted men. Sometimes our people will be in the field for a few weeks, sometimes for a few months. We hope however, to keep a close enough contact to avoid periods where the continuously changing R/D requirements are not fully explained. I'd like to make note of the fact, at this point, that we are now preparing papers for one of our R/D men to be transferred to Europe and attached to NSAE. He will serve either a 1 or 2 year tour of duty and be relieved by another of our technical representatives.

While on the subject of personnel, we are hopeful that the R/D tasks assigned to the various stations will be sufficiently interesting to attract the attention of the best intercept operators and maintenance men. If so, this development work may contribute in a small way to the efforts the field commanders make to stimulate the interest of the personnel attached to the station.

Now, we propose to provide an additional support to this operation in the field through two rather unusual financing arrangements.

At the present time these arrangements are with regard to the European theater but we hope to follow them in the Far East. The arrangements are as follows: First, we have what we call "Confidential Funds" These funds are made available to NSAE who in turn is authorized to provide cash to selected individuals. Some of these individuals are R/D engineers in the theater at the time, and some are service personnel attached to the particular stations in which they are doing this R/D work. NSAE may give them sums of money ranging up to \$100, at a time, on a hand receipt. The individuals can then use this money to purchase in the theater those small parts, components, or even services, necessary to get their job done. The second fiscal arrangement which we have concerns the purchase in the theater of equipments available on the local economy. These would be items generally costing in excess of \$100.

This then leaves us with the question of "When will all this come to pass?" To begin with, we are already in operation at Bremerhaven, and we are already

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in operation at [redacted]. Arrangements are now being made for the operation at Hof and we expect to ship equipment within the coming week. We expect to have this equipment installed and in operation sometime in May. The ASA Border Unit will come under R/D operation and technical control approximately 15 June of this year.

In the Far East, we expect to have the installations at Wakani and the installation at Kami-Seya in operation by late fall of this year.

### III. PROGRESS REPORT

I would now like to take a few moments to describe a little of the progress which has already been made at the [redacted]

[redacted] and, second, to determine what the technical requirements are which must be met to enable us to satisfactorily collect this traffic. We are working very closely with both NSA (PROD) and ASA trying to gear this program so that we can as quickly as possible turn over to PROD and to the services a normal intercept collection problem.

### IV. CONCLUSIONS

Up to this point in my talk, I have given you some of the background of the field research activity in the ZI. I have tried to describe why we in R/D have failed to be as effective as we could, in the past. I have tried to describe how we believe the Overseas Field Research program will operate to improve our effectiveness in helping you with your technical field problems. I have given you a very brief report on what we have achieved to date and perhaps now I can give you some idea of what you may expect in the near future from this program. We expect to go into [redacted], as mentioned previously, this May and bring with us some [redacted] equipment. Actually we are bringing with us an experimental intercept system; we have a number of antenna ideas we would like to try out, these include a diversity system which we feel may improve the quality of traffic parti-

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cularly from air to ground intercept; we are bringing receivers which are more sensitive than anything else which has heretofore been tried out in the field; we are bringing with us some panoramic receivers, which we hope will perform quite well in this operation. These panoramic receivers display all of the activity in a given portion of the spectrum at one time. For example, in the case of [REDACTED] of the spectrum, an intercept operator would be enabled to quickly locate the frequency channels where there may be activity. He would then manually tune his receiver, or receivers, to guard these channels. This is actually a first step toward the development of an automatic search and lock-in intercept system for operations against aperiodic transmissions.

Incidentally, this is a good point at which to bring in the advantages to be gained by doing this developmental work in the field where we have experienced operators who can compare the way they are doing their job today with the methods we are proposing to bring to them tomorrow. We can get that evaluation right on the spot and attempt to make corrections in our procedures to better conform to that which the field personnel consider to be operationally desirable.

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Now at [REDACTED], we expect to follow the noise monitoring position with an experimental flexible multiplex intercept position. We have a number of ideas on improving this particular intercept system and we would like to bring our equipment out and set it up on the target and see how well it performs. If successful we feel we can cut down the normal delay time which we face in moving from an R/D development to a normal operation in the field.

Finally, we expect to introduce a strengthened technical search program into the European theater covering not only the high frequency portion of the spectrum, and below, but even more important, the VHF/UHF portion of the spectrum and above.

As far as the Far East is concerned, the program out there is behind perhaps 6 to 9 months the program in Europe. It is expected the Far East program will pretty much follow the same pattern as in Europe. [REDACTED] we will do a similar type of VHF work. However, we are going to be in a little different environment, For one thing, our signals are propagated over water in the Far East whereas in the European Theater they are propagated over land.

In the high frequency portion of the spectrum we are most interested in the technical search aspect at the present time; this includes, as a natural part of the technical search operation, a noise listening position. We will undoubtedly do some analysis of jammers in the Far East as we are now doing in the European theater.

What one may expect of this field research program a year and a half or so from now is very hard to say. We consider this to be primarily a pilot program at the present time. We have already learned a considerable amount

[REDACTED]  
encouraged by this. We feel to a very great extent, it brings many of our engineering people in the laboratory much closer to the field. It gives us a much better appreciation of your problems, and we hope that we will soon be in a better position to support your operations.

F. The discussion of Mr. Hausman's presentation was concerned with the capabilities of the equipments employed.

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**SECRET**MEMORANDUM FOR THE RECORD

A. TOPIC NUMBER : 18

B. TOPIC NAME : PERSONNEL PLANNING

C. TYPE OF SESSION: GENERAL MEETING

D. CHAIRMAN : CAPTAIN J. S. HOLTWICK, USN, DEPUTY CHIEF OF STAFF FOR OPERATIONS

E. PRESENTATION :

The following presentation was delivered by Colonel Duncan Sinclair, USA, Chief, Personnel Division:

INTRODUCTION -

General Canine, Ladies and Gentlemen. I don't know how many of you are intimately concerned with personnel but I daresay that sooner or later each and everyone of the problems which you have been discussing here this week depend in one way or another on the availability or utilization of personnel. Consequently, it seems appropriate to extend into the personnel field General Canine's remarks of the opening session regarding communications. There may be no immediate solution for the five problems which I shall lay before you this morning, but if we all can recognize them and continually work at them, success will eventually be achieved.

As you know, at NSA we are authorized 10,713 people of which 7,388 are civilians. So long as we comply with applicable directives, we enjoy comparatively complete freedom in the hiring, assignment, training, promotion, and separation of civilian workers, and our ability to resupply ourselves with the necessary civilian skills is dependent largely on their availability in the labor market and on the salaries which the law allows. But with our 3,325 military people, it's a far more difficult problem. Here we face, not only the peculiarities of three different services, but also long lead-time between request and receipt. Since the military personnel situation is more difficult, but especially since many of you who are assembled here represent the service cryptologic agencies from or through whom all NSA military replacements must come, the five problems which I shall discuss are limited to military personnel. I assume you will carry them away with you and work with us toward their ultimate solution.

PROBLEM NO. 1 - MANNING NSA AT 100% OF AUTHORIZED STRENGTH

Problem No. 1 concerns keeping NSA at 100% of authorized strength by all three services, a situation which history has yet to see. As of 28 February 1955, NSA was short 153 in authorized commissioned and warrant officer strength and 102 in authorized enlisted strength. While you may feel that these are not serious shortages, I hasten to point out that they should not exist at all, as I shall demonstrate later.

This 100% strength problem has three parts. Part Able involves the prescribed NSA tour of three years which, with a few agreed exceptions, applies to all military personnel coming to NSA. You can see that if all 3,325 military men stayed with NSA for three years, we would suffer an annual turn-over of 1,108 or 33 1/3%. In actual fact, during calendar 1954 we lost 1,644 officers and men, a turn-over of 49 1/2%! This high turn-over is due in part to the practice of enlisting soldiers for only three years. Naturally by the time basic and cryptologic training have been completed, the new soldier comes to NSA with considerably less than three years' remaining service and we are

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faced with the Hobson's choice of accepting him for a short tour or going without. Until the service departments all graduate to enlistments of four or more years, the best solution is to fill NSA with overseas returnees who have re-enlisted or ZI professionals who don't require so much preliminary training. To achieve stability and full strength, we welcome any suggestion which will eliminate the assignment to NSA of soldiers who are on their first enlistment in favor of the man who is entering his second or subsequent hitch (or cruise, as they say in the Navy).

Another reason for the excessive turn-over is the extremely low intake in all three services of regular officers. The result is that practically all lieutenant and ensign billets are held by ROTC graduates or Reserves who have been called to active duty usually for two years. Again NSA has its choice of accepting these or none. This high turnover among junior officers is bad enough in itself, but the really serious damage lies in the fact that almost no young regulars are getting cryptologic experience and the professionalism which exists today will die on the vine unless new blood enters at the bottom. I am happy to say that ASA has pounded the Department of the Army into commencing this year with an annual infusion of young regular officers. During calendar year 1955 a total of 50 regular officers will be assigned to ASA, some of whom will be welcomed into NSA. A similar arrangement seems to me a must for NSG and AFSS.

Part Baker of the 100% strength problem has to do with personnel programs, and for these I draw your attention to this diagram. As you know, the Department of Defense is executive agent for the National Security Council where COMINT is concerned. Within DOD, NSA is charged with the execution and direction of the COMINT effort, Under DOD are the three service departments and within each service department is the service cryptologic agency which is the personnel procurer for NSA. Notice that while you in the cryptologic agencies are on the receiving end of operational orders emanating from NSA, NSA is on the receiving end where personnel is concerned. It is true that NSA regulations require the crypt agencies to submit to NSA their plans and programs but too often they are received too late, and too often we find too late that there have been revisions or adjustments. As for service department programs, if we see them at all, it is after the fact. We've gotten better in the past year at ferreting out personnel programs and keeping abreast of what's in store for us. Rather than to use the command channels to force prompter information of changes in personnel programs, we'd prefer to have you keep us posted to date, even calling on us to go to bat for you when you discover that your service department is considering programs which may hurt you and us and consequently the COMINT effort.

Part Charlie of the 100% strength question concerns a lack of appreciation of the origin of NSA's strength authorization. Unless they are continually reminded, people tend to forget that the Joint Chiefs of Staff have fixed the contrivution of each service to NSA at 355 officers and 753 enlisted men. These strength authorizations are not subject to manipulation by the service departments although your own strength is. Each service, whether directly or through you, by JCS direction, owes us 355 officers and 753 enlisted men. If your particular service has chosen to include NSA authorizations within your total, then it would appear that you have the responsibility of filling the NSA authorizations completely. This is why I mentioned earlier that present shortages should not exist at all.

Summing up Problem No. 1, in order to bring the NSA military complement up to 100% of authorized strength and maintain it there, there must be:

- More effort to reduce turnover by assigning people who will stay for three years,

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**SECRET**PROBLEM 1 (continued)

- Better information of your own and your service department personnel programs,

- More emphasis on the inflexibility of the present NSA strength authorizations.

PROBLEM NO. 2 - WHAT HAPPENS TO THE MILITARY MAN WHEN HE REPORTS TO NSA

Problem No. 2 is a brief description of the policies followed at NSA in the reception and assignment of officers and men reporting to NSA.

At the outset, let me say that we are quite concerned with the numbers of officers and enlisted men who commit themselves to housing in the Washington area before they have reported to NSA to discover what their specific assignment will be. In spite of all our efforts to broadcast this caution, men are finding themselves assigned to duty at one of the four locations NSA now operates which may be many miles from their housing and which may result in severe personal or financial hardship. This has become a significant morale problem since the relocation of part of our operations to Fort Meade, and will continue to be a problem until our entire effort is moved to this post.

As most of you know, NSA now operates at four locations: Arlington Hall Station in Virginia; Naval Security Station on Nebraska Avenue in Northwest Washington; the NSA School in Temporary "R" Building near the Capitol; and here at Fort Meade. The distance between AHS and Fort Meade is about 30 miles and takes approximately 50 minutes driving time. It is about the same from NSS to Fort Meade. Commercial transportation to Fort Meade is very limited. Commuting from some areas around Washington to AHS, NSS or the School may take up to two hours or more by commercial transportation.

It is important therefore, that personnel leaving your commands for duty with NSA be cautioned against committing themselves for housing until they have reported to NSA and received firm assignments. The length of time involved in making a firm assignment will vary with individual circumstances. Perhaps the best way to illustrate this point is to describe the steps a man must take in reporting and receiving his assignment.

1. Each man reports to his service administrative command. His official records, pay, etc., are taken up by that command.

2. The man then reports to NSA Military Personnel Branch at NSS. He is interviewed, his clearance status is verified, his badge picture is taken, and he submits a PHS. At this time he will receive a firm or tentative assignment. Typical reasons which result in only a tentative assignment are an incomplete clearance, training in NSA School the performance in which determines final assignment, or further interviews by operating Chiefs.

3. All personnel with no previous NSA experience are assigned to a one week orientation course at the NSA School. Exceptions are made in the case of certain senior officers for which special orientation tours are usually provided. If the person is cleared and requires no specialized training at the school, he reports to his duty section at the end of the orientation course.

4. Men pending clearance or those placed in special courses at the school may remain there for varying periods, depending on completion of the course or clearance or both. Every effort is made to give the man a firm duty station location as soon as possible. There are few cases that go beyond the one week orientation period before such information can be provided.

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**SECRET**PROBLEM NO. 2 - (continued)

I urge you to relay this information to your personnel officers and to insure that men leaving your command for duty with NSA are properly advised. Do not limit this advice to the married ones. Bachelors have a way of taking leave enroute and showing up in Washington with a brand new wife.

I suspect that many men coming to NSA wonder what kind of a job they will get. With the exception of those provided on "by name" requests, military personnel ordered to NSA for duty by their service are supplied against this Agency's stated requirements, identified by grade and skill. Since the career plans of the three services do not at this time provide adequately for all the skills required by NSA and by the cryptologic effort on the whole, we must use the identification systems now in existence. Each of the services have a different numerical system of identifying skills: MOS, SUJCO, AFSC. In stating our requirements to the supporting services we endeavor to use the skill label which specifically identifies the requirement if one exists. When the requirement cannot be so identified we must use the nearest specialty code which the particular service provides, or one which provides a suitable background for the NSA job.

The man reporting to NSA is identified by his service specialty code and will usually have been provided by his service to fill a requirement in either his primary or secondary skill.

Within the job requirements of NSA we make every effort to place each individual where he can be utilized most effectively. With exception of those few (usually senior) officers whose assignments are determined prior to reporting, each new arrival is interviewed to confirm his specialty code and determine if he has any unique skill or experience that would make him better qualified for one billet as compared to another.

Occasionally there are factors which result in assigning a man to duties which are either outside his primary skill area or are only indirectly related. We have accepted men from the service to fill authorizations in a different skill from their specialty because the service has been unable to provide sufficient men of the proper specialty. These men are retrained on the job and in the NSA School. Also, because of the long-pipeline, which for NSA ranges from 6 to 24 months, changing job requirements sometimes finds us with men arriving to fill a requirement that no longer exists. We are doing everything we can to eliminate these situations and stabilize our military requirements. However, the factors are sometimes beyond our direct control. Improvement in the cryptologic career plans of the three services will in turn reduce the number of exceptions. Increased liaison and coordination with service headquarters for personnel programming will also benefit all concerned.

A specific difficulty which continually faces us in NSA is the assignment of intercept operators. As you will all agree, it is a constant struggle to develop sufficient numbers of qualified and experienced intercept operators. With large numbers of overseas billets and few in the ZI for these people, the services, particularly USAFSS, has been forced to release qualified career intercept operators for duty outside of the COMINT field. These men are often not recoverable. Others who would become career men do not re-enlist because they do not relish the prospect of requalifying in a different specialty. We in NSA feel that part of a successful security service career plan must necessarily include a secondary skill for intercept operators which will permit them to be effectively utilized in ZI headquarters billets. It is felt that one of the logical sources of analytical personnel is the intercept operator. Some of them may develop skills in T/A, C/A or language. When their ZI tour is completed, they can then go back to field billets better qualified to be an operator or supervisor. The Navy Security Group has long followed the practice

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**SECRET**PROBLEM NO. 2 - (continued)

of developing traffic analysts from intercept operators. ASA does not have an acute problem of this nature at the present time but it is a potential problem. We have recently made arrangements with the USAF Security Service to accept intercept operators for retraining in related fields. This approach is consistent with uniform cryptologic career plans for the three services which are now under development and which I shall mention within a few minutes.

Summing up this problem, NSA does its utmost to assign all incoming people in accordance with their indicated skills and skill levels, and for the Lord's sake, tell your people not to sign up for a house until they have signed in and received the assignment which will determine their geographic duty location.

PROBLEM NO. 3 - STABILIZATION OF REQUIREMENTS

My third problem deals with the steps we are taking to stabilize the personnel requirements which NSA places upon the three cryptologic agencies. Realizing that such stabilization is a prime contribution to sound service programming, the Personnel Division in October 1953 embarked on what we call the Occupational Analysis Program. While this program was aimed primarily at the civilian aspect of the Agency it was felt that through this program much could be done to stabilize and properly classify military positions.

The Occupational Analysis Program develops job structures to include all jobs necessary to accomplish the mission of the Agency. This development involves the joint participation of representatives from the operating areas and the Personnel Division in meetings which are convened for the purpose of arriving at a common understanding of related functions and levels of difficulty. These related functions are grouped into categories and job surveys are conducted by category rather than by organizational segment. On the job sheet which is prepared for each level within each category, not only the civilian grade and title is placed, but also the military specialties and levels of the three services.

From this program, job requirements are developed for military personnel and information is obtained for the preparation of Agency training courses, for the evaluation of service training courses in related fields and for the enrollment of Agency military personnel in different training courses. We have developed data which supports requests for new military job codes or for the revision of existing codes to cover the specialty fields of the Agency. We are identifying jobs that can be used for military rotation in the cryptologic field and jobs which can become a part of the military career ladders of each service.

In order to further stabilize NSA military jobs, the Personnel Division carefully reviews all requests from the operating areas for changes in military requirements. First, for the necessity of the skill, and secondly, as to whether operating officials are asking for the correct skill. Whenever necessary, a military classifier conducts a military audit to determine the skill required. Prior to making any change, the pipe-line is checked to determine if a body is enroute to fill the billet that is undergoing change, and a further check is made to determine whether there is someone in training to fill this requirement. While a change in emphasis is the primary cause for a change in personnel requirements, I do wish to emphasize that there is a thorough investigation before a change is made, and that we are working even now on a new internal device which shows promise of further stabilization of NSA military requirements.

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The fourth problem concerns cryptologic career planning which has been going on for sometime under the direction of the NSA Technical Management Board. This is no unilateral NSA project, but one which has included full participation by your representatives from the start. The purpose of this project is to develop a framework within which individual service cryptologic career plans can be developed, so that service career structures will be based on common technical fundamentals.

Since operational differences and variations in the structure of your commands have a major effect on a study of this kind, guidance must be broad and sufficiently flexible to meet special situations within your service. Accordingly, it was not considered practical to develop detailed career progression, but rather to categorize basic specialties and groups of specialties on which career structures could be based.

When the present policies and procedures governing applicable phases of personnel and training in your organizations were reviewed, significant differences were noted. But since the three cryptologic organizations have more similarities than dissimilarities, a standardized approach to those aspects of career planning which are peculiar to cryptologic organizations appears feasible and appropriate. The different categories of cryptologic specialties afford a minimum standard for the services to utilize in developing cryptologic career plans based on organizational needs and in consonance with parent service requirements.

The enlisted career structure has been divided into four branches:

(1) Collection Branch:

Morse Intercept  
Non-Morse Intercept  
Voice Intercept  
Morse Monitor  
Non-Morse Monitor  
Direction Finding  
Radio Finger Printing

(2) Analysis Branch

CA  
TA  
Machine Aids  
RFP Analyst  
COMINT Analyst  
COMINT Linguist  
Weather Analyst

(3) Maintenance Branch

Machine Aids  
Teletype  
Crypto Equipment  
Intercept Equipment

(4) Cryptologic Service Branch

Crypto-distribution and any other service functions deemed desirable by your organizations.

The grouping of specialties in each branch is based on categories of common skill.

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**SECRET**PROBLEM NO. 4 - (continued)

With respect to officer personnel, three distinct types were categorized:

- (1) The Cryptologic Career Specialist who is essentially the graduate level specialist who would duplicate the skills usually found in civilian personnel but because of potential requirements for such specialties outside the ZI, military personnel would be required.
- (2) The Cryptologic Career Generalist who would make up the "hard core" of the cryptologic officers.
- (3) The Non-Cryptologic Officer who would rotate between general service assignment and assignment with the cryptologic organizations.

With your cooperation, the ultimate development of this project will not only help in equalizing the grade vs skill levels in your organizations but will also assist in resolving the problems encountered in assignment, rotation, grade advancement, cross-over into other cryptologic specialties and last but not least, your re-enlistment problems. We feel certain that the availability of a valid long-range career plan, indicating paths of advancement and training, is a recognized and valuable means of providing an incentive to all military personnel to continue their military careers.

PROBLEM NO. 5 - MILITARY CONVERSIONS

Having just mentioned re-enlistment, I move now to the fifth and final problem, a short discussion of the business of offering civilian positions in NSA to ex-military cryptologists.

It has been alleged that NSA materially increases the problems of the three services, in maintaining a strong military cryptologic career group, through an apparent policy of encouraging experienced military personnel to accept civilian positions with NSA in lieu of continued military service. I have no doubt that each service represented here can cite cases illustrating instances which apparently support this allegation.

However, I will state firmly that at no time has it been the policy of NSA to actively solicit or otherwise encourage military personnel to leave the services for NSA. Our policy in the past has been to hire only those experienced cryptologic personnel who desire such employment after they have decided to leave the military service.

As a matter of record, NSA has not hired any really significant numbers of military cryptologic personnel. During the year ending March 1955, we employed some 145 military conversions while at the same time we lost some 56 experienced cryptologic personnel to the military services. Of the 145 personnel hired during this period, in excess of 2/3 had less than six years military service and probably could not have been considered career military personnel. Many of these individuals in addition were reserve officers who were being relieved involuntarily from active duty. Furthermore, with minor exceptions the 145 figure includes only those military personnel who converted to civilian status from local military assignments. Those cryptologic military personnel not assigned to NSA who applied for a job after discharge and were accepted are not readily identifiable from any other recent veteran looking for a job. In any event, such cases are not the result of any NSA recruiting activity.

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From the above figures I think it can be seen that NSA inroads on career military personnel are negligible in proportion to the total numbers of military personnel in the cryptologic effort. But let's look backward for just a moment. For the past several years NSA has been almost continually in the position of expanding its civilian component. Almost without exception each supervisor in NSA has had numerous vacancies that he could not immediately fill. Under this condition I think it is conceivable that ambitious supervisors, as individuals and despite NSA policy, would attempt to persuade military personnel associated with their organizations of the benefits and advantages of a civilian career in NSA. Since re-enlistment rates throughout the services have been low, there is a far better than even chance that service personnel thus persuaded would otherwise have been completely lost to the cryptologic effort.

Now for a look at our present and future civilian strength situation. We expect to reach a fully manned position by 1 September of this year. As this day draws nearer, NSA will become more and more selective in considering all applicants for employment, especially in the higher grades which seem so attractive to the prospective military converter. The point is simply this: Very soon the number of available jobs will be determined by attrition, (which is very low) and there will be little hiring at the higher grades. The time has come to spread the word among the military fellows who are thinking of civilian jobs at NSA that the prospects are getting slimmer.

As a general policy, NSA is primarily concerned with maintaining as many experienced personnel within the cryptologic effort as possible. This applies to both civilian and military personnel. Bearing in mind that service re-enlistment rates are running between 10 to 30 percent, there is still a very considerable group of bona fide ex-service personnel in whom NSA is interested in offering employment.

Our policy, then, can be simply stated as follows:

- (1) We are not intentionally in competition with the services for the employment of experienced military personnel.
- (2) We will continue to offer employment, to the extent that vacancies exist, to all qualified and experienced military personnel who, of their own volition, determine to leave the services for a civilian career.

We will cooperate with the services in this problem by avoiding any active solicitation or encouragement of military personnel to accept civilian employment. We will avoid undue publicity among active service personnel of civilian job opportunities. In turn we ask the cooperation of the military services in recommending to us for employment, those qualified and experienced personnel who have decided to conclude their service careers.

CONCLUSION

Summing up in reverse order, the problem of military conversions will pretty well disappear as NSA reaches its authorized civilian strength this coming summer. Uniform cryptologic career planning is well under way, and the question of stabilized military requirements is prominent in our minds. As for replacements coming to NSA, I repeat again: - Warn them not to get tangled up in a house until they know where they are going to work. Finally, toward an improved strength situation, there must be a reduction in turnover, better information of service personnel programs, and closer attention to the strength authorization which has been established by the Joint Chiefs of Staff and is binding on each service.

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MEMORANDUM FOR THE RECORD

A. TOPIC NUMBER : 19

B. TOPIC NAME : SECURITY MATTERS

C. TYPE OF SESSION : GENERAL MEETING

D. CHAIRMAN : DWIGHT M. AGNEW, CAPT, USN, DEPUTY CHIEF OF STAFF  
FOR ADMINISTRATION

E. SUMMARY OF PRESENTATION: BY MR. S. WESLEY REYNOLDS, CHIEF, SECURITY  
DIVISION

The protection of communications intelligence is of prime concern to all. The Security Division, NSA, is aware of the need for strong security in the COMINT field and seeks every opportunity to impress others with the need to constantly bear in mind the necessity for strong and effective security.

Recently the Chief of the Security Division had an opportunity to observe some aspects of security in a few field installations. The mission was primarily concerned with personnel security; however, a few physical security items were worthy of mention. The lack of uniformity in the field of physical security was noted, an example of which being guards were observed in one antenna field while their absence was noted in others. It would appear if guards were necessary in one antenna field, there should be a need for them in others or, conversely, if they were unnecessary in one, it would be a waste of manpower to have them in others. The lack of uniformity in handling, transmitting, and accountability of classified code-word material was noted, indicating a need for devising a uniform regulation which would provide effective security and, at the same time, not hamstring operations. Security rules and regulations must be realistic and provide good security and must not be promulgated merely to fix responsibilities. The problem of devising a uniform regulation has been referred to the Technical Management Board.

It was observed that the Commanders are occasionally embarrassed as a result of not receiving notification of the clearance status of visitors to their installations. It appears that the information is not being passed down through command channels to the installation commanders. This places the installation commander in the dilemma of either following sound security practices and refusing access, or permitting access. In the first instance, time is wasted and it creates an embarrassing position, vis-a-vis the visitors and the commander, while on the other hand to permit entries is asking the commander to take an undue risk.

The Security Division of NSA feels that insufficient emphasis has been placed upon personnel security. It is logical to presume that foreign intelligence agencies are interested in penetrating our operations. There are three methods for foreign intelligence agencies to collect information: infiltration, defection, and collecting bits and pieces of information such as can be obtained through loose talk. In such a sensitive operation as the production of communications intelligence, it must be assumed that foreign intelligence agencies have successfully penetrated our operations or we possess individuals who are logical targets for defection. It is NSA Security Division's theory that affirmative action must be taken to reveal a successful penetration or to separate those individuals who might be considered logical targets for defection. A vigorous personnel security program

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has been instituted at NSA. This program includes a strong security education program, close liaison with the counterintelligence and law enforcement agencies, an investigative staff to conduct administrative type investigations and to conduct interrogations, and a counterintelligence research program.

During the recent trip of the Chief of the Security Division, a number of problems were noted which indicated a need for a strong personnel security supervision program in the field. These problems include the "shacking" problem; association with individuals of loose morals; perversion; criminal activities; alcoholism; emotional instability; and potential capture by unfriendly forces. It was the observation of the Chief of the Security Division, NSA, that a more effective security education program should be instituted in field stations, these programs designed to be applicable to local situations. There is a great need for more effective liaison with the service counterintelligence and law enforcement agencies. There is a definite need that the cryptologic services in the field be staffed with qualified investigators capable of conducting investigations, interrogations, and who are qualified to conduct counterintelligence research.

It was recommended that there be established in the organization of the field units a position of full-time security officer whose staff would be implemented by trained investigators in accordance with the size of the unit. It was pointed out that the mere creation of a position was insufficient and that it would be essential the position be filled with a professional security officer.

The Chief of the Security Division, NSA, concluded that personnel security can no longer be disregarded. We cannot rely solely on a statement "the individual is cleared" but must take affirmative action to make certain that our units are not penetrated and also to eliminate from our units those individuals who are logical targets for defection.

## F. COMMENTS ON DISCUSSION PERIOD:

A question was asked relative to the problem facing Commanders on receiving visitors without proper notification of clearance status. The question was whether or not a Commander should permit access to a visitor whom he has known for a long period of time and is aware that the visitor was cleared and indoctrinated. It was pointed out by the leader of the discussion that it was believed that whether or not an individual should or should not be permitted access was the Commander's prerogative and that it was believed NSA's policy would be to back up the Commander on whatever decision he made. It was pointed out, however, that the best solution to this entire problem would be to evolve an operating procedure whereby in every instance the Commander would be advised in advance of the visitor's clearance status.

A question was raised requesting further discussion on the opinion of the Chief of the Security Division, NSA, as to what might be done about the problem of "shacking up" in the field. The Chief of the Security Division, NSA, indicated that he was aware of the problem and of the apparent incongruity of withdrawing a man's clearance when he marries a foreign woman, yet no action to withdraw his clearance is taken when he lives with

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Discussion Period (continued)

her in an illicit relationship. It was pointed out that all must remember that for an individual to have access to COMINT he must be of excellent character and discretion and unquestioned loyalty, and living with a woman in an illicit relationship reflects adversely on an individual's character and discretion. It was pointed out that the Commanders must bear in mind at all times that if a man becomes involved with the wrong people, either the association must be discontinued or he must be separated from access before a serious compromise occurs. It was pointed out that the Commanders are in a position to contact the local counterintelligence or local service criminal investigative agencies in order to find out something regarding the background of any particular woman in his area. It was further indicated that the problem is recognized and an effort will be made to study it and attempt to furnish a guide to the field Commanders.

A question was asked whether the mere fact that an individual is a logical target for foreign intelligence agents was sufficient reason for release. The Chief of the Security Division, NSA, indicated that any security officer who receives information that an individual is a logical target and a likely victim of foreign intelligence agencies most certainly must take action. It was pointed out that an individual who had been considered to be a logical target and likely victim would undoubtedly fail to meet the clearance standards for access to COMINT as set forth in USCIB No. 5 and, in all probability, would be subject to termination under Executive Order 10450.

It was noted that the Chief of the Security Division, NSA, had in the past indicated the necessity for controlling the action of personnel under any field unit, as well as the fact that each unit should have an officer or man whose full time would concern security. It was also stated that the Chief of the Security Division, NSA, had noted that liaison with various service investigative units is sometimes difficult. The question was asked as to whether or not NSA intended to implement the staffs of the field activities by assigning professional security officers to the field activities who had previous investigative experience. The Chief of the Security Division, NSA, indicated that this suggestion had not been extensively studied at that time. However, General Canine is fearful that if security personnel are placed on the staffs of NSA field activities there might be a tendency on the part of local Commanders to turn over their security responsibilities to the NSA security people. It was indicated that General Canine does not desire to discharge the security responsibility of the field Commander. A comment was made by one Commander that he had had to call, on one occasion, on the counterintelligence agencies and received very prompt service. The Chief of the Security Division, NSA, indicated that the counterintelligence agencies of the respective services are well qualified and, from his personal experience, most cooperative. However, the counterintelligence agencies are bound by a delimitations agreement which limits the investigative jurisdiction by the CIC of the Army, ONI of the Navy, and OSI of the Air Force. He pointed out that by this agreement the Army, for instance, is prohibited from investigating Air Force or Naval personnel. Hence, if one of the Field Commanders requests a counterintelligence agency to institute an investigation contrary to its jurisdiction, it would appear to be an undue request. The Chief of the Security Division, NSA, stated that, from his personal experience, frequently the counterintelligence agencies pass information to and institute investigations for one of the other military services purely on the basis of friendship and in the interest of cooperation. He stated that it is his opinion that liaison could be perfected in all of these instances whereby a closer working relationship would exist between the Field Commanders and the counterintelligence agencies.

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Discussion Period (continued)PL 86-36/50 USC 3605  
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A question was asked as to what chance an individual would have of being falsely blackmailed by manufactured evidence. The Chief of the Security Division, NSA, indicated that he did not believe there was much chance of this since there were too many other individuals who might be blackmailed without the necessity of manufactured evidence. Further, that if the security education program was effective, an individual under such circumstances could reasonably be presumed to make the facts known to the proper authorities.

A question was asked as to what has been or can be done regarding the large number of people who have been cleared for access to COMINT who no longer are associated with any of the government agencies which would require that they have access. The Chief of the Security Division, NSA, indicated that considerable thought has been given to this problem. He pointed out that the name of every individual who has been cleared for COMINT is made available to the FBI who, in turn, cross-indexes this information in their files. If, in the course of their investigations of espionage or subversive activities, an individual's name becomes known to them, they check their files as a matter of course. The FBI files will indicate that the individual had been cleared for COMINT, at which time NSA would be immediately notified by the FBI. It was acknowledged that this may not be complete coverage but it would be impossible to place a full-time surveillance on everyone who had ever had access to COMINT. It was further pointed out that efforts are being made to take another step along these lines by informing the Passport Division of the State Department of the names of individuals who had been cleared or everybody who no longer required clearance so that if such an individual applied for a passport, NSA would be put on notice and enabled to take whatever action possible to either eliminate or discourage the foreign travel.

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**TOP SECRET**MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER 20
- B. COMINT COMMUNICATIONS SECURITY
- C. ROUND-TABLE DISCUSSION
- D. CHAIRMAN: MR. C. C. CORRY, CHIEF, OFFICE OF COMSEC DOCTRINE
- E. HIGHLIGHTS OF THE SESSION:

1. The Chairman introduced Col. K. I. Davis, deputy to Col. F. E. Herrelko, who attended the meeting in Col. Herrelko's place.

2. Mr. Corry then summarized the accomplishments since the last Conference, and outlined future plans. He began by pointing out that USCIB has, during the past eighteen months or more, taken a greater interest in the communications security of COMINT. In February 1954, a USCIB Directive (CIBD No. 9) was issued requiring NSA to establish minimum standards for COMINT COMSEC, and establishing procedures for reporting COMSEC violations involving COMINT. Briefly, the procedure requires a report to NSA by the Commander of the station where the violation occurred; NSA then summarizes the report and forwards it to USCIB.

3. The Chairman stated that, since the last Conference, NSA had:

- a. Prepared periodic lists of all cryptosystems authorized for use in COMINT communications.
- b. Published a manual (AFSAG 1262-1) which describes all the on-line terminal arrangements authorized for COMINT communications.
- c. Established and had approved by USCIB "Security Criteria for the Transmission of COMINT by Electrical Means" (minimum standards).
- d. Adopted a device which is designed to prevent inadvertent plain language transmissions and monoalphabetic substitution in one-time tape operation. All stations have been supplied with the device (the Torn Tape Stop Mechanism), and all, with rare exceptions, are now in use.
- e. Prepared, with the help of ASA, NSG and AFSS, a detailed questionnaire on COMINT communications security. It is designed to provide the stations with a COMSEC check list, as well as to provide NSA with specific information on certain items of special COMSEC interest.

4. Mr. Corry stated that, in addition, NSA is:

- a. Preparing minimum standards for COMSEC training programs.
- b. Working on a modification which is designed to improve the cryptosecurity of the ASAM 2-1. The modification kits which are now in production will be ready for distribution in a few days.
- c. Investigating a modification designed to prevent inadvertent plain language transmissions from the keyboard in on-line teletypewriter operation.
- d. Offering the services of NSA personnel to visit field stations, on request, for the purpose of providing assistance in solving local problems.

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**TOP SECRET**

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EO 3.3(h)(2)Highlights (continued)

5. Mr. E. B. McGettrick, COMSEC Consultant, who had recently made a visit to 16 stations in the Far East, then spoke briefly on his trip. He pointed out that the visits were not inspections, but a means of exchanging information. He stated that, from a COMSEC viewpoint, the Navy stations in the Far East and Pacific areas were uniformly excellent, as were the Army stations. At Air Force Stations, the personnel were very willing to learn, but the stations suffered from greater shortage of experienced personnel than Army and Navy and a lack of top quality equipment. He reported the following general complaints:

a. Apparent failure on the part of the Headquarters and NSA to relay advance information to the field.

b. Excessive paper work required in reporting what are locally considered to be minor security violations.

With reference to the second complaint, Mr. McGettrick stated that many reports were based on formal investigations, which were not an NSA, but a Service requirement. He mentioned that many valuable suggestions were received such as one by the Communications Officer at [ ] viz., that a 10-day reserve supply of tapes be sent to USN-11, USN-39, and possibly USN-27. This would serve to connect these stations directly with NSA in case a complete outage of 5 UCOs at [ ] should occur, but communications remain possible. He stated that this suggestion was under consideration and would probably be acted on. He concluded with the statement that the training program at Air Force station USA-57 was superior to any other program he had seen, and that the customary advance planning of COMSEC arrangements for Army stations would improve the general COMSEC situation if more generally applied.

6. The meeting was then opened to questions and discussion.

7. In response to his inquiry, Lt. Col. Mize, USA, ASAAL, was informed that the AFSAM 7 is approved for COMINT use and that Hqs, ASA, has requested systems for such use.

8. In the course of a discussion on radiation from the ASAM 2-1, copper screening was suggested as an interference radiation reducer. Mr. Corry pointed out that some progress had been made toward solution of the radiation problem, but it was by no means solved. Studies, however, were continuing, and all available resources were being devoted to solution. He stated that the AFSAZ 7319, which is in the service test stage now, does not completely eliminate radiation, but helps considerably. The conferees were informed that they could see this equipment in operation in the Fort Meade NSA Communications Center. In response to an inquiry as to whether or not the AFSAZ 7319 had been cleared and approved for Service use, Mr. Corry stated that it had not as yet, that each Service must conduct service tests and accept new equipments before they are "approved".

9. L/CDR Langdon, USN-12, observed that, with regard to the problem of preventing keyboard transmission, untrained operators who get "carried away" with setting up operation on on-line circuits are the greatest hazard. The lack of time available for training is an additional problem. He stated his belief that adoption and promulgation of standard accepted phraseology for use by operators in clearing garbles and regaining synchrony would serve to eliminate most errors of this type. It was stated that an NSA circular prescribing such phraseology was now in an advanced stage and should be distributed soon. A few other problems at USN-12 were discussed, such as the limitation [ ]

[ ] Solutions to both problems are coming in the near future.

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**TOP SECRET**Highlights (continued)

10. Mr. Wolfand, ASA, inquired as to the purpose of AFSAK 2822 and whether there was a continuing requirement for the system. In reply, it was stated that AFSAK 2822 was set up originally at the request of the Services as a Joint COMINT system to be held by all stations producing COMINT; that the requirement still remains, according to the latest available information; and that AFSAK 2822 cannot as yet be replaced with an AFSAM 7 system until the Navy has equipment that can intercommunicate with the AFSAM 7.

11. In response to a query as to whether the NSA guidance program had improved the communications security of COMINT during the past year, Mr. Corry stated that, statistically, there has not been much improvement. He pointed out, however, that statistics probably do not present the true situation; and that the improved reporting procedures, etc., have produced more reports, but do not necessarily prove that errors have increased. He stated further that it may be two or three years before any actual degree of improvement can be known.

12. He stated, in response to a final question, that, in the interest of COMSEC improvement, present emphasis should be placed on operator training

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~~TOP SECRET EIDER~~MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER: 21
- B. TOPIC NAME: CROSS-SERVICING
- C. TYPE OF SESSION: ROUND-TABLE DISCUSSION
- D. CHAIRMAN: HARRY L. CLARK, CHIEF, NSAEUR
- E. HIGHLIGHTS:

1. The chairman opened the discussion by reading a precis of Circular 53-5 which deals with the exchange of COMINT end-products. No difficulties were being experienced in the field as a result of the implementation of the Circular. Captain Lehman, NAVSECGRUPAC, indicated that the overlapping between the two NSA Field Activities in the area NSAPAC and NSAFE could lead to difficulty in effecting a COMINT exchange between the COMINT units in the Far East. It was agreed that this situation should be watched, but that the danger was slight and the difficulty by no means insurmountable.

2. It was pointed out to the overseas commanders that a companion Circular which will deal with the exchange of technical information was now in preparation. Colonel Peterson, Chief, ASA Europe indicated that technical cross-servicing was often quite non-routine in nature and required advance preparation and planning. In particular, Colonel Peterson was desirous that he be permitted to refer to his parent headquarters any cross-servicing requirements which he was unable to fulfill from within his own resources. It was explained that this could be done, that the non-routine character of certain cross-servicing requirements was recognized, and that the field units were encouraged to comment in each instance on their capacity to undertake cross-servicing commitments.

3. The role of the NSA Field Activities in facilitating COMINT exchanges was touched upon, and in particular it was pointed out that those offices had considerable latitude in releasing NSA-controlled facilities in their respective areas to meet compelling cross-servicing requirements for temporary periods.

4. Mention was made of the list of NSA-produced end-products which was being prepared for USEJCOM. It was agreed that this list, when complete, should also be sent to the other major commands overseas, especially to CINCPAC, CINCFE and CINCAL.

5. A comment by LCDR Nicholson, NAVSECGRUNELM, indicated that the distribution lists appended to Circular 53-5 were inaccurate. It was explained that those lists were being revised and would be reissued as soon as all three Services had indicated the precise commands to which they wanted cross-servicing to be extended.

- F. SPECIFIC PROBLEMS RAISED: NONE
- G. RECOMMENDATIONS:

1. That the PROD Reporting Group (NSA-065) insure that a list of NSA-produced end-products is made available to every major command overseas, through the NSA Field Activity in the area.

2. That the Field Operations Direction Group (NSA-063) expedite the reissue of the distribution lists for Circular 53-5.

3. That NSAPAC and NSAFE work out joint procedures for the cross-area exchange of COMINT end-product and technical information in the Far East. It is understood that NSAPAC and NSAFE have already taken a number of actions in this regard.

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15 April 1955

- a. Topic Number 22
- b. Special Weather
- c. Round Table Session: Chairman; CDR W.B. Louthen, USN,  
Acting Chief, Weather Division
- d. Highlights and Problems: EO 3.3(h)(2)  
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  - (1) A brief discussion was given by CDR Louthen (Acting NSA-95) on the present status of COMINT weather and the planning in this field.
  - (2) Col. Pulling (NSAUK) raised the question of the future mission of FU/LANT, considering the fact that the Russian Hydromet broadcast  has become clear.
  - (3) Col. Towler (CO, 6950th Sec. Gp.) and Col. Pulling recommended that FU/LANT be amalgamated into the 6950th Security Group, in a manner somewhat similar to the amalgamation of FU/PAC into the 6920th Security Wing, in order to simplify administrative control procedures with respect to personnel and Special Weather Intelligence dissemination.
  - (4) Col. Pulling recommended that the new SWILO billet, now on the NSAEUR staff, be assigned to the 6900th Security Wing to enable the incumbent to carry out necessary coordination matters in both Europe and UK.
  - (5) Col. Pulling strongly recommended re-establishment of a common crypto-system between the Air Force and Navy for SWI dissemination.
- e. Recommended Actions:
  - (2) Col. Pulling recommended that the FU/LANT mission not be changed and that the previously enciphered Russian Hydromet weather continue to be intercepted and disseminated so that the FU/LANT is in a state of readiness if the hydromet goes enciphered in the future. It is the current intent to continue intercept and dissemination of this data until such time as the Services are able to obtain intercept, disseminate, and interpret (with regard to location of new reporting station and ability to read certain weather brevity codes included in this data) on a completely non-COMINT basis. At that time, intercept coverage is to be put on some form of rotating coverage of these particular hydromet collective broadcasts and as

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much coverage as possible be shifted to hydromet feeder links which have not been exploited to any great extent in the past. This action will retain the FU/LANT capability for hydromet exploitation if the necessity arises in the future.

- (3) Any action on this recommendation will be dependent on:
- (a) Total mission assigned FU/LANT after the Russian hydromet problem stabilizes. EO 3.3(h)(2)  
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  - (b)
  - (c) Future relationship of FU/LANT with the weather effort on the continent (to be coordinated by SWILO, NSAEUR).
- (4) In view of the fact that this billet is for the purpose of exploiting "by-product" weather take on the continent from all three services, it is felt that this can best be accomplished under NSA aegis.
- (5) Discussion indicated that the different service crypto-systems were adopted because of the differences in space and circuit time limitations between the Air Force and Navy. However, this matter will be discussed with the Services again.

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~~TOP SECRET EIDER~~MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER: 24
- B. TOPIC NAME: COMINT SUPPORT TO CINCPAC
- C. TYPE OF SESSION: ROUND-TABLE DISCUSSION
- D. CHAIRMAN: CAPTAIN WESLEY A. WRIGHT, USN, CHIEF, NSAPAC
- E. HIGHLIGHTS:

1. The Chairman opened the discussion by outlining the command structure in the CINCPAC area and sketching the history of actions taken thus far to improve COMINT support to CINCPAC. The Chairman indicated that although there had been considerable improvement in COMINT support, a great deal remained to be done. One of the principle difficulties was in the poor timeliness of COMINT information received within the CINCPAC area, and the Chairman ascribed this difficulty in large part to the inadequate communications throughout the area. It was explained that active steps were being taken to remedy the existing situation.

2. In connection with the question of timeliness, considerable discussion took place on the type of forward echelon which CINCPAC may establish. (Mention had earlier been made of the possibility of a CINCPAC "ADVANCE" headquarters on Formosa.) Capt Wright pointed out that the only definite information concerned the establishment of a joint operations center on Formosa which would include a combined intelligence center; it was not known whether or not the latter would be permitted to receive COMINT material. Capt Wright further indicated that the whole problem of a forward headquarters would be discussed at a conference to be held in Taipei in April.

3. In response to a query from Col Klocko, AFSS, the mission and functions of the "interpretive" units to be established in Hawaii were discussed in broad terms. (This question was then discussed with Colonel Klocko and Captain Wright in much greater detail at a later meeting.) In brief, it was explained that the Army and Air Force interpretive units would function on their respective problems in precisely the same way as the Navy Advance Exploitation Unit(AEU) [ ] They would receive all COMINT end-product information produced in the Far East, plus all technical information on which the end-product was based. They will receive and answer queries from their respective commanders, will receive COMINT requirements from those commanders, and will conduct liaison with their counterpart Service COMINT units elsewhere in the Far East to insure an adequate response to the requirements of those commanders.

4. Considerable discussion took place on the question of logistic support to the COMINT units on Formosa. General Reichelderfer, Chief, ASA, was particularly disturbed by the existing situation and urged that maximum support be given to his headquarters in remedying that situation. Colonel Davis, Chief, NSA Plans and Policy Division, indicated that NSA was willing to support ASA in this connection to any extent deemed necessary.

5. The flow of traffic and end-products from the COMINT units on Formosa was discussed briefly. It was understood that both units would do such local processing of their own take as was required for first-instance reporting purposes. (At this point, too, the question was again raised as to just what command or commands in the Formosa area would require the close support capable of being provided by the Formosa units.) Mr. Mitchell, PROD Plans and Control Group (NSA-062), outlined the plans for processing and for traffic flow as reflected in the NSA Emergency Plan for Formosa.

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6. Much time was devoted to the subject of increased COMINT facilities in the Philippines. While no agreement was reached on the extent of expansion which should be planned for the Philippines, it was generally agreed that the matter should be studied in complete detail. In this connection, the paucity of intercept facilities in the Philippines was highlighted by the stated requirements of both the Military Division (NSA-91) for Chinese Communist 4th Field Army traffic, and the Asiatic Division (NSA-74) for Viet Minh traffic, both of which are copiable from the Philippines and both of which produce information of great interest to CINCPAC.

7. Colonel Weeks, Commander, 6920th Security Wing indicated that he was prepared to augment the AFSS facility on Formosa to the extent of some ten to twelve positions from within his existing resources, if permission for expansion of that facility were granted. All concerned agreed that the urgency of the existing situation in Formosa warranted an attempt to secure authorization for an increase in the Air Force facility in Formosa.

## F. SPECIFIC PROBLEMS RAISED:

1. The inadequacy of existing communications in the Far East area, particularly where support to U.S. Commands involved with Formosa is concerned.
2. The limited knowledge available to the COMINT community as a whole on the precise command(s) to be served by the U.S. units on Formosa.
3. The inadequacy of existing logistic support arrangements for the COMINT units on Formosa.
4. The need for increased intercept facilities in the Philippines.
5. The need for augmenting the AFSS facility on Formosa.

## G. RECOMMENDATIONS:

Considerable study has been and is being given to the problem of improved COMINT support throughout the Far East. With respect to the specific problems pointed up during this session, cognizant elements of NSA and of the three Services have already moved to take remedial action. What remains to be done would appear to fall into the following three areas of consideration.

1. A continuing attempt to improve and expand the communications facilities available to the COMINT family in the Far East.
2. A detailed review of existing COMINT operations in the Far East with the aim of developing a plan for increased effort in the Philippines.
3. A continuing attempt to secure such operational planning data from the Pacific commands as is necessary to assist in COMINT planning for that area.

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~~TOP SECRET~~MEMORANDUM FOR THE RECORD

- A. TOPIC NUMBER: 26
- B. TOPIC NAME: EXPLANATION OF CIVILIAN INTERCEPT OPERATOR PROGRAM
- C. TYPE OF SESSION: GENERAL MEETING
- D. CHAIRMAN: CDR FRANK V. MASON, USN, PLANS AND POLICY DIVISION
- E. PRESENTATION:

1. In presentation of the subject, Mr. R. Terrell, Office of Collection, explained the major facets of the Civilian Intercept Operator Program as follows:

a. Scope.

- (1) Civilian spaces established are designed to supplement military spaces in existing stations of ASA, AFSS, and NSG and are drawn from presently programmed military intercept operator spaces.
- (2) A specialists group set up within NSA will perform primarily troubleshooter missions on new transmission problems, assist where necessary in Services' training of their personnel in installation and operation of new equipment, and carry out complex experimental tasks.
- (3) Civilian spaces are to be established within NSA Research and Developmental field research units to augment the military personnel.
- (4) Initially, 100 spaces are attached to ASA by the Director to implement a pilot project comprised of some twenty positions which, if successful, will be expanded to a degree requiring adjustments in the number of personnel and grade structure. ASA implements the pilot operations with civilian personnel allocated by NSA, as indicated below:

(a) ASA Europe.

- 1 Herzo Base, Germany (8606 DU). Calls for twenty-nine (29) operators primarily skilled in morse intercept. However, to provide for testing and other intercept specialties in the pilot program, up to 20 percent of this number may be specialists in MOA, RFP, DF, and/or voice intercept.
- 2 Baumholder, Germany (8611 DU). A total of twenty-one (21) operators, the majority of whom are multiplex printer skilled, will work at this station. Twenty percent of these may be specialists in MOA, RFP, DF, and/or voice intercept.

(b) ASA Far East.

- 1 Okinawa (8603 DU). Thirty-five (35) operators will be integrated into the operations of the station. Except for the twenty percent of this number which will specialize in MOA, RFP, DF and/or voice intercept, these operators will be primarily morse intercept skilled.

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2 Kyoto (8610 DU). Pilot operations here call for fifteen (15) operators. Primary function of this element is multiplex printer copy. Twenty percent may be specialists in MOA, RFP, DF, and/or voice intercept.

b. Objectives.

- (1) To provide better continuity and familiarity with COMINT intercept operations through utilization of an expansible permanent corps of skilled professionals created to alleviate the detriment to effort now encountered from the high attrition in the military ranks.
- (2) To materially improve the quality of intercept material available for analysis.
- (3) To effect economy in funds and personnel. (It is believed that for each 100 civilian intercept operator increment established, requirements for military operators can be decreased by 125 persons.)
- (4) To establish a career program attractive to qualified COMINT trained military personnel who do not elect to continue military service.

c. Planning and Establishment of Policy.

- (1) In mid-1954, the Director had his Staff take active steps to effect the research and coordination necessary to develop a plan for establishment of a civilian intercept operator component supplementary to the military intercept programs of the Services. This plan was duly created and on 12 November 1954, the Secretary of Defense approved the concept of operation of the Civilian Intercept Operator Program to be undertaken within the Department of Defense. As indicated in paragraph 2a above, ASA is vested with the responsibility for proceeding with the pilot project implementing this program.
- (2) Within NSA, responsibility for the control and monitoring of this program is delegated to the Office of Collection which is primarily concerned with the selection, standardization, and utilization of intercept facilities. Personnel assigned within that Office to regulate the Civilian Intercept Operator Program will:
  - (a) Act as an administrative control point.
  - (b) Make regular and systematic audit of the effectiveness of the Program.
  - (c) Appraise the growth and achievements of the civilian intercept operator component and identify its future training needs.
  - (d) Insure that improvements necessary to the program are effected.
  - (e) Develop a career ladder for operators integrated into the Program.

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d. Personnel. During the pilot operation, it can be expected that the Civilian Intercept Operator Program will encounter personnel and administrative problems similar to those now encountered by the Services, but unique to this particular activity. Wherever such exist, they will be resolved along guidelines that follow:

- (1) Training. No initial long training period should obtain inasmuch as the operators will be qualified and experienced at employment. Specialized training will be administered within NSA. Type of pre-tour orientation to be given by PROD will be determined by the operator's pending field assignment.
- (2) Administrative Control. The status of the civilian operator is analogous to that of NSA employees attached for duty at ASA installations. Personnel actions such as procurement, classification, assignment, and payment will be performed by NSA in consultation with Army Security Agency. Detailed instructions relating to payroll records maintenance and submission of civilian personnel reports by the Chief, ASAE and station commanders concerned, will be provided by the Director, NSA.
- (3) Control at Operating Level. Actions such as specific job assignments, duty schedules, performance ratings, and disciplinary measures will be controlled at this level by Chief, ASAE, through the station commanders concerned, in accordance with pertinent ASA and NSA directives.
- (4) Rotation. Civilian operators returning from overseas stations remain assigned to NSA-60 and may be detailed to other elements of PROD for duty or further specialized training while awaiting next overseas tour of duty. Operators' stay in the Zone of Interior will be for a minimum of one year before returning to field stations. The minimum overseas tour will be twenty-four months. Employees resigning prior to completion of a two year tour shall be required to fund transportation to the ZI at their own expense.

e. Funds and Logistic Support.

- (1) All expenses relating to the pilot operation will be defrayed by the Director. This includes salaries, pay differentials, allowances and travel pay of civilian employees and their dependents.
- (2) The Service Cryptologic Agency will be responsible for providing the necessary equipment and maintenance facilities. Other logistic support will be provided as mutually agreed between NSA and the Service Cryptologic Agency concerned.

f. Evaluation and Follow-up. At the close of FY-1956, a full evaluation of the results of the pilot operation will be made to determine the feasibility of establishing a permanent civilian operators program on an operational basis. To provide data on which to base this evaluation, NSA will conduct a continuing survey of the quality of traffic intercepted and/or processed by the pilot program operators. In addition, the theater and station commanders concerned will report on the progress of the program as may be required by criteria and instructions published by the Director.

2. During the conference period immediately following Mr. Terrel's presentation, certain considerations having bearing on the matter at hand came to light. Discussions that attended the more significant of these follow:

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~~TOP SECRET~~a. Limitation on Length of Overseas Tour of Duty.

(1) A question arose as to whether the two year limit proposed for tour during the pilot operation is to be maximum for the fully implemented program.

(2) This was explained as being sufficient for the pilot program but that it should not be construed as being unalterable. Rather, it is felt that as the operation proves itself, a limit of up to four years may be provided. However, this latter limit should not be exceeded. It is designed to prevent loss of perspective which might result from too extended a tour overseas.

b. Lateral Transfer in Overseas Areas. To a question as to permissibility for lateral transfer of an operator within the overseas area without returning to NSA, answer given indicated that lateral transfer in the U.S. had been permitted. It did not, however, indicate whether such action would be allowed overseas.

c. Role of the NSA Field Activity. Questions relating to the role of the NSA field activity in the implementation of the Civilian Intercept Operator Program were answered as follows:

(1) The NSA field activity may be called upon to assist the Cryptologic Agency theater headquarters in its solution of problems of an administrative nature which may be referred to the latter by NSA.

(2) The Civilian operators will not be considered as belonging to the Cryptologic Agency. They are assigned for duty with ASA and ordered to the overseas headquarters of that Agency. They must be made to realize that they are working for that headquarters and that they should, therefore, go there with their problems rather than to the NSA field activity concerned.

d. Establishment of an All-civilian Unit. Operators are being deployed for utilization in several military stations rather than putting them all in a civilian unit inasmuch as it is felt that by this approach, more value to the over-all COMINT effort may be realized. It is recognized that a completely civilian unit would produce excellent results, however, the purpose of this program is to infuse the military effort with the know-how that these skilled professionals will possess, and to attract fully qualified candidates for future operations from among those operators departing the military service.

e. Control of Civilian Operators in Overseas Theaters. Civilian operators shall be subject to the same considerations which govern the military in overseas areas. They will receive no preferential treatment. Their position descriptions call for performance of any duties which the station commander may assign additional to their technical specialities.

f. Possible Conflict on Dissension Resulting from Disparity Between Grades of Civilian and Military Operator. It is recognized that some misunderstanding may result from the necessity for co-working lower military grades and GS-5 and GS-6 ratings. The preponderance of low grades in military operator ranks results from the rapid turnover. GS-9 or GS-11 ratings may be placed either at the head of a section or as an assistant to military supervisors. Any feelings of misunderstanding which may be engendered by this integration of effort and by obvious disparity in pay scales for identical jobs may be alleviated by assigning the more difficult operational tasks to the skilled professional, the civilian operator. This approach should stimulate the military operator to better performance and an eventual reward by upgrade. The effort must be integrated. Separation of the civilian from the soldier operator will engender a competition that is not wanted, inasmuch as the civilian will certainly out-perform the

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military operator just out of school, and thereby, injure the program. This program, properly administered by the commander concerned, should pose no imponderables. The way to its successful accomplishment is through proper leadership on the part of commanders concerned.

g. Effect of this Program upon Reenlistments. This was taken into consideration in formulation of the plan. The overall plan was approved by the Secretary of Defense - this is only a trial project. Reenlistments may be affected by this program. However, every effort will be made to avoid conflict with the reenlistment campaigns of the Services. Emphasis will be placed on hiring reservists and retired personnel who may be qualified before consideration is given to operators scheduled for release from the Service.

h. Procurement at Overseas Stations. It is planned to hire men at overseas stations, bringing the majority to the ZI for orientation and return to overseas duty, with a few remaining overseas after discharge. The first action is preferable. It would preclude necessity for returning the operator to NSA at the end of his two year tour for clearance testing. It is better for the newly hired operator to return and flow back to the overseas area through normal personnel channels.

i. Eventual Integration of Navy and Air Force in Program. If the program (pilot operation) is successful we can anticipate a time when the civilian operator will replace military billets. However, the present objective is to supplement the military effort. Conversion to civilian billets poses a loss of five for every four converted. This deficit should be offset by increased efficiency.

3. The matters discussed above do not present problems hazardous to successful accomplishment of this Program. The concept of operations approved by the Secretary of Defense furnishes guidelines adequate to realization of the objectives. Common sense interpretation and administration of the task will, through the medium of good leadership, enable this Program to progress to the end desired with a minimum of discomfort to all concerned.

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CLOSING ADDRESS BY  
 LIEUTENANT GENERAL RALPH J. CANINE, USA  
 DIRECTOR, NATIONAL SECURITY AGENCY

Well, Gentlemen, you will get as much out of one of these meetings as you put into it, if you keep an open mind. I have talked to a good many people here and I have made a point to find out some of their reactions. I find some doubt among people I meet about decentralization. When I say "decentralization," I am no semanticist. I hired a couple to keep me straight when they can. They have a rough time. I used the word "decentralization" the first time I started talking to anybody about it, and I presume that for want of a better term, that word was adopted as the name for the process that we have been and are going through, of getting work done on problems as close to the point of contact as we can. It may not be a very good word. I am convinced that not all of us define it alike. Let me tell you what I think about it and what my people think about it. Maybe they didn't think about it that way at noon today, but that is the way they think about it now.

I don't think we can run the COMINT business from Washington. I think the COMINT business has to be decentralized. I think we ought to process the communications of the target, the communications complex, as close to the point of intercept as we can, for the simple reason that it is a lot easier to transmit back and out and forward the comparatively small groupage of end product as compared with the tremendous groupage of intercepted raw traffic.

I am sure the communicators would buy the thesis of processing as close to the point of intercept as possible if nobody else would. It so happens there are a good many other reasons for it. That is fundamentally what I mean by decentralization. I don't remember that I very clearly thought who was going to do what and to whom. I probably didn't. I am not so sure I have yet. I don't think it makes a bit of difference. I don't think it makes much difference so long as somebody does the work.

It is rather obvious to me from talking to the people from the field, in talking to some of my own people stationed here in Washington, that it hasn't been all sweetness and light. I expect about half the trouble has been from well-meaning but ignorant people here in Washington and well-meaning but ignorant people out in the boondocks. I hope, in your discussions this past week between groups of well-meaning people who want to get on with the work of the world, that you have ironed out most of your difficulties. If, you haven't, I want to know about it. I am convinced the only hope of achieving rapid reporting or immediate reporting, is in decentralization.

If the present system isn't what we need, after we have tried it and given it a fair pilot run, let's get something else. I hold no particular brief for any single way of getting something done. There are a dozen ways a thing can be done, usually. It doesn't make much difference how you do it if you want to do it. It isn't how they are going to be done but whether you want to get them done. I am convinced we have back here in Washington a good many well-meaning and dedicated individuals who have been unnecessarily harrassing you people. I understand thoroughly. I don't have to know anything about the COMINT business, and I know all about it, to have to come to that conclusion. All I need to know is human nature.

When I finally told the people after listening to a lot of talk about decentralization, "OK, you have had your day in court. Now start tomorrow and do it," nobody wanted to do it. Nobody wanted to do it then. It was a good thing, but you had to wait until you were ready to do it. You had to wait until we were ready here. We had to wait until you were ready in the field. We had to wait until Gabriel tooted his horn or just after, maybe before. That wouldn't be possible - just after. The first guy says

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"I am all ready. We are all set, boys. Let's put it into effect." As he said those words, you would have heard that faint last echo of the bugle. So I said, "Start going tomorrow." I am prepared to accept a considerable reduction in accuracy, in efficiency and in everything else to get the show on the road, and we will improve it after we start.

Now I know exactly what happened. We have a lot of dedicated people around here. We have some of the most erudite people COMINT-wise that exist anywhere and we have some dedicated people from the standpoint of conscience. We have a lot of people who didn't agree with what I said. They thought the only way it could be done was to keep a tight rein on you people; and the only way to really keep the US from going to the Russians today, or the day after the A bomb hits, was for them to stick and keep their noses in your business. I am reasonably sure I am safe in saying this, that you shouldn't have been surprised. Some of the people who have talked the most and loudest about this in this past week have spent considerable time around here. You know these guys. It wouldn't have made a bit of difference if we were running the atomic energy business or running General Electric or anything else, people are the same. Just the mere fact they are in the COMINT business doesn't make them a bit different.

I will not tolerate a shotgun approach in trying to find out who the guys are who have been unnecessarily needling you. They didn't know what I knew, that you were much more erudite than they thought you were. They didn't know how completely competent you were. I have been out and seen you and you guys do pretty well. They were not convinced I meant what I said about taking it on the chin from the consumer, to have, to have our product decrease in accuracy. I don't mind that a bit. I am perfectly willing to have it so long as the bell has not rung. This is the time to experiment. I am perfectly willing to take chances now so I don't have to take them later on. I would hate to have to start decentralization after the shooting war starts, and we would have to.

What are we going to do? We are going to keep decentralization - my kind of decentralization. I don't care what you call it so long as you let me call it that. We will make progress just as fast as we can eliminate individual friction between my Indians and yours. There are no Indians in here today. I mean that exactly, and I won't let the people here make this shotgun approach, and I suggest strongly to you that you don't shotgun it and set up some silly method of checking everything in order to find and cure one tenth of the people, one quarter of them, maybe one half. What you need to do is to find the individuals Joe Dokes or Corporal Dumb John, whoever they are, the guys who are still unreconstructed rebels, and re-construct them one way or another. We don't need the water cure. You can fire them if you can't reconstruct them.

But let's not shotgun this thing. Let's make it work and let's find out who the people are who need to be educated and let's educate them today. Do I make myself reasonably clear about it? We are going to keep on, unless we find out it is not the way to do it and there is a better way to serve our customers in the field and here in Washington. In that connection, I trust there has been no inhibition put on free expression of ideas here in this conference. I trust there will never be any inhibitions or prohibitions or any attempt to muzzle anybody. I am reasonably sure the people who talked to me weren't muzzled.

The only way you find out what we here in Washington think is by having us tell you. The only way we find out here in Washington what you think is to have you tell us.

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We want and need comments and expect to get them on our operations. You can't improve them any other way. We don't know all there is to know about everything. I strongly suspect that neither do you. I could be wrong, but I suspect it. It is only by an interchange of ideas among open-minded men who want to get the work of the world done that you can do anything that has to be done, and Gentlemen, you can do anything that has to be done.

Now, another thing. I don't believe in the "tail wagging the dog." I don't believe, when I want to do something, in having my Communicator, my Personnel fellow, my Logistics fellow, or my Headquarters Commandant come in and say, "John, you can't do that." That isn't what I hired him for. I hired them to come in and say, "General, this is the way you can do it."

I think we should design the best possible COMINT program for the US and then support it. I mean that emphatically, and then support it. You don't win wars by doing what your G-4 says you can do. You win wars by telling your G-4, "I am going to do this," and then he supports it. I have been a G-4, and I know a little bit of something about it. We need a plan to take on enemy communications. I think we have to work as a team. I think, if you tell this fellow, "Knock down that guy when the ball is passed," that he ought to go and knock him down and not worry a bit about what the other ten guys are going to do. His No. 1 requirement is to knock that one guy down. After he sees that he is securely on the ground, and he can be sure of that if he has his feet in his face, then he should start worrying about helping somebody else.

I don't think you can let everybody decide what he is going to do. You know what would happen? If we let everybody decide what he was going to do in this COMINT business, there would be a tremendous amount that is not done. It just follows, boys. You don't have to be in the COMINT business to make that statement. It is essential that everything be covered, that somebody make that decision here in the US, or in the Theater, after it has been decided that he needs to know about it.

We have made an attempt in the staff at NSA to apportion the work of the world. I doubt if it is perfect. I wouldn't say it was. I know very well it isn't perfect. I am sure it can be improved, but I might as well state here and now so there is no argument about the logic of the thing, I reserve the right to change it. I reserve the right to be sure that everything is covered.

If you haven't got enough work to do out in the boondocks at Point A or Point Q or anywhere else that COMINT people are stationed and have an operation in effect, if you have a great deal of time hanging on your hands, if you are so over staffed that your guys are running around saying "I'm all out of work," well, let your bosses know first and then tell me. I will get something out there for you to do. There are a lot of places I am sure are undermanned. Maybe the distribution of bodies is wrong.

I take a very dim view of people deciding for themselves that they have time to do something else. I don't think we have any justification for doing it in one COMINT station in the world. You know that all the requirements are laid on the whole COMINT community and no one station commander is in a position, Gentlemen, to decide if he has more time to do things or what he ought to do. I say that without fear of being contradicted. I can't imagine the COMINT business of the US going on unplanned.

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Now let's keep it planned. If you have more time on your hands than you know what to do with, I am sure if you will ask your Cryptologic Agency boss that he will say, "I know what to do." I am completely certain they have more work than they know what to do with. They will be only too happy to reassign some of these extra people somewhere so they can cover a piece of pie that is not now being covered.

The COMINT business requires that somebody cut up the pie and make sure that all the initial cuts are issued to somebody. Then somebody cuts those first pieces into smaller pieces, and you don't get much of a bite unless it is a heck of a big pie.

We also have to have a reasonable amount of uniformity in how we do things and how we put out our end result. I know I have had you ask me, "My guys are putting this out on purple paper and this guy wants it on pink. Why can't I give it to him?" To you he is the most important guy in the world. If you didn't think he was I wouldn't want you working in the COMINT business. But it so happens, Gentlemen, that very little of our product goes to only one guy. There may have been some occasions when only one person in the world among the COMINT receivers got something. I don't remember. It seems to me, every time I look at distribution lists, you have taken the Army, Navy, and Air Force Registers and just gone down through them. Now maybe just one guy in the whole outfit was interested in it, or you are just padding the list. I don't know. At the present time it seems we are sending our product to too many people. I assume that when we put that kind of distribution on it, somebody has said he was interested in it. If he hasn't, take his name off. If you can cut it down, I don't much care what color paper it goes on. You can get some Reynolds wrap and send it to him if you want to, but again you have the problem of making sure when you decide on the color of the paper, the least number of people are going to get it.

You have the problem of format and what goes into the various places in the format that meets the greatest common denominator. If you have some individual customer and you have plenty of time and a lot of these extra people around that you are talking about, you give him a special. But you must get one out that meets the requirements of the greatest number. You don't duplicate what you have already given your individual customer, but if the format didn't include two items that he wants, send him a spot.

Let's do the best we can for them. Now I don't know what has been said about the consumers around here. Like Gen Bassett, I am concerned always about the consumer. I don't know what your definition of a consumer is. My definition of a consumer is the guy who can order airplanes into the air, require cannon balls to be shot, or the Missouri out of mothballs, somebody who can take command. I am vitally concerned about whether we are serving them and serving them well and, within our capabilities and limitations, giving them what they want. I am not at all sure sometimes, because they have something else to do besides becoming experts in the COMINT business, that they know how to lay requirements on us. I think it is our job to educate them.

I think I know more about the limitations and capabilities of the COMINT business than anybody outside of the COMINT business. I opened this session by saying this was a service organization; I am going to close it by saying that this is a service organization. I don't expect to kill any more Krauts. I expect to wind up my career in service. It's a poor way for an artillery man to end up, but apparently that is the way I am going to do it and I want to do a good job of it.

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I expect the COMINT business of the US, insofar as I can influence it, to serve the commanders to the best of our ability and give them as close to what they think they want, as it is within our capability of doing. I charge you, each and every one of you, whether you are here in Washington or on the tip of Hokkaido, and points in between both ways around, with doing exactly that. I hope you have found out precisely how to do it this week.

I will end by saying this one thing, that we can do anything we want to do. It is not knowledge that controls how much is done in this world. It is will. Now let's have a lot of will to get along with the work of the world and quit arguing about it.

I am glad you came here. I will see some of you starting week after next and the rest of you I hope to see in the Fall. In the meantime, let's do a job for the US. Thank you.

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