

Oral History Interview

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with

Prescott Currier, CAPTAIN, USN (Ret.)

14 April 1972

NSA, Fort Meade, Maryland

Interviewed by: Henry Schorreck

This is a taped interview with Prescott Currier, 14 April 1972, 10 A.M.

SCHORRECK: The first question Captain was how and when did you enter the COMINT business?

CURRIER: Gee, I entered the COMINT business in 1932. I started for the Naval Academy and dozed out of the Navy Academy and they asked me what I wanted to do next so I had, so I went in as an enlisted man. And, a, so I went to Radio School and then I became one of the first intercept operators and went to Station C at Olongopo, the Philippines. It was there that I met Lieutenant Wenger, who was Fleet Intelligence Officer. And when I came back, after I finished my obligatory service I came back and registered at Dartmouth. Then they sent me a little note and said, "Would you mind coming to Washington to work?" which I did. So I actually stayed, it was only, it was a hiatus

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something on the order of possibly three months and I came here in about October '35, I guess.

SCHORRECK: Um hum.

CURRIER: And I, shortly thereafter I got a commission in the Reserve, but I worked as a civilian from 1935 until October 1940, with a Reserve Commission and then I went on active duty in 1940 and in December of 1940, toward the end of December, I was one of the four who went to England and made the first contact with GCCS. Bob Weeks and I and Abe Sinkov and Leo Rosen were the four that went--two from the Army and two from the Navy. We spent three months in England.

SCHORRECK: Were you familiar with the, with the Commander Safford?

CURRIER: Ah yes, he was, of yes, yeah.

SCHORRECK: And his correspondence Courses?

CURRIER: Yeah ah, familiar in that, that I knew that they existed. I don't recall ever having taken any, however, I didn't think they were necessary. They seemed sort of a waste of time.

SCHORRECK: Did you run across many people at this time, for instance, Rochefort?

CURRIER: Well, Rochefort was...

SCHORRECK: Rochefort and Wenger.

CURRIER: Yeah, well, of course, Rochefort was in Pearl all the time. He was, as far as I know, never in Washington, but

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the people who were, who were there in the '30s, I mean Jack Holtworth (Probably Holt-wick. W. Day) and Kramer who was a translator and Eddie Pierce a translator, linguists. It was rather an odd arrangement as you may know at that time that OP-20-G and ONI had an arrangement on the intelligence side under which ONI supplied the translators. And they were the intelligence channel from OP-20-G ^{to} and ONI, and the only one. So the language offices were all supplied by ONI and in addition to that, there were three linguists hired by OP-20-G--Fred Woodruff, who's still here, Phil Cate, who left the Agency sort of under a cloud, not a very serious one, and a Seventh Day Adventist Missionary named Hollis Howard.

SCHORRECK: Linwood Howeth?

CURRIER: No, not, no, no, no, this was, this was a Seventh Day Adventist Missionary. No it wasn't...He was the third linguist and the three linguists at that time, who were hired and paid by OP-20-G worked on the diplomatic system. That was in the period '35 through 1940.

SCHORRECK: In this early period, what systems were worked on a current basis and what worked?

CURRIER: Well, it's difficult to say. You have to define current, but, in the main all of the diplomatic systems were worked almost on a current basis. The Naval Systems, of course, were much larger and, therefore, with few exceptions,

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were not really worked on a current basis. I take that back, I take that back. In principle, Navy Administrative Systems were worked on a current basis, and even with a small number of people it wasn't all that difficult to solve the transpositions and, the codes, as I recall, were all one-part, so that the recovery was not all that difficult. Now they were, they were being worked pretty much on a current basis, but the principal source of valuable information came from the Naval Attache and that was...There were three different systems. All of which I worked on. The Red machine, which was the modified Kryha, and there were two Naval Attache systems--one of which turned out to be a version of something called the Hei Code which was their material^e system, but they handled all the, all the Japanese Attache material on the technical side which in this, in a version in that particular code, an enormous book, 500 pages. I can remember discovering it some time along about a year after we'd been in the thing, quite by chance. This gave us a leg up... It was much easier then. Then there were several minor attache systems that nowadays would take them in five minutes if you wanted to. As a matter of fact, they weren't really very difficult. I don't remember precisely what I did, but I remember reading them. One of them was on a, made up in the form of a disk, it was used to encipher code

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in which the middle digit was fixed and this sort of made things pretty easy.

SCHORRECK: In these early days when once, once the, of course OP-20-G was functioning as an analytical center, and once Pearl Harbor was created in 1936 ^{and} ~~in~~ Corregidor as Intelligence Centers, who tasked the Intelligence Centers as to what systems they would concentrate on?

CURRIER: Nobody, nobody, I say nobody. There wasn't a central tasking service, if you will, the only requirement was that information be produced on the Japanese Navy. You see it was a one-country, one-service war. And there was no doubt in anyone's mind as to precisely what they should do. There wasn't any question of having more than one job--there was one job. You read all the Japanese Navy traffic you can.

SCHORRECK: Regardless of what system it was sent in?

CURRIER: Yeah, but there weren't that many systems.

SCHORRECK: Well I mean as opposed...to the Red machine.

CURRIER: The Red machine was diplomatic and Naval attache but it was done for the same reason and got the same kind of information that you would normally get from diplomatic traffic. As a matter of fact, some of the most interesting material came out of the Red machine. I mean the two really phenomenal spy stories, 37 - 36 and 37 "Agent K", tell me more on both--we built up the entire case out of

? Tony Nomura?
? Tomci ?

the Red machine because we read the traffic currently, most of it. Enough of it so that there was no problem. But to go back to who tasked...told whom to do what? It was left pretty much up to the intercept station themselves as to how they would go about copying the traffic, and they didn't have any tasking, they didn't have any set system for arriving at what material was needed. They simply copied everything they could and it was up to the station commanders and the operators themselves to devise their own system for intercepting all the material that was on the air. Everything that they could get. So that, so that the...over the period from say 1932 through 1937 or '38, they gradually developed a system for determining what the frequency use of the fleets and shore stations was and they knew what their schedules were and they knew what kind of traffic passed at what times. And the big interest all during the '30s was, of course, the Japanese maneuvers--the so-called "Orange maneuvers." And it was up to the intercept stations to get all the material that they could and there was no question of being told--copy this system on this circuit, because this is what we're interested in. There was no way of determining, in advance, precisely, what material would be passing on those circuits. And it was a much more primitive time, as you must know, because, all

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communication was hand sent Morse--all of it. That's all there was. So that it was, it was a good deal less and it was, it was a much slower-paced period.

SCHORRECK: Then the Intelligence Center would simply process whatever the intercept station turned over to them?

CURRIER: The Intelligence Centers would, yes, that's yes that's essentially correct. All the intercepted material was sent into the, to Pearl and to Washington. There was no attempt, that I can recall, of ever trying to prevent duplication of effort. It was considered at the time and for some time after, that as being very worthwhile. It encouraged, it encouraged competition. And there was surprisingly little wasted effort, really, in spite of this traffic. The results were exchanged so that everyone knew what everyone else was doing and while on some, certain occasions, certain of the material might be duplicated. There wasn't very much. And there was, as I recall, an informal arrangement for certain traffic being worked on by Washington, certain by Pearl and so on. So that, there wasn't even as much duplication as you might otherwise suspect.

SCHORRECK: Yeah, I can, I have a document that states that when Commander Rochefort was sent to Pearl Harbor in 1940-41, that he was sent the code personally by Commander Safford to start emphasizing the JN25.

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CURRIER: Yeah, um hum.

SCHORRECK: And so, it's been confusing, somewhat confusing in my mind as to who was, who was trying to concentrate on what? And, of course, Mr. Raven said, during the war that the Corregidor unit and which later evacuated to Melbourne, were somewhat specialists in the minor systems.

CURRIER: Ah, yeah. To a degree they were, but many of the minor systems were never worked fully, simply because there were neither people¹ or time. And the amount of information in the minor systems, was so much less than in the JN25 system so that, almost without exception, all three areas, FRUPAC, FRUMEL, and NEGAT all worked on the same material. And there was intense competition to get it out first, and I've never regretted the fact that, while there was a certain amount of duplication, nobody really believed anyone else on code group recoveries. Anything that FRUPAC insisted was correct, would never be believed by anybody in Washington. And if they put...there was a system for designating validities for code group recoveries, a guess was, let's see a guess for FRUPAC was an "M" and confirmed value was an "H" and Washington was a "W" as confirmed and an "N" was a guess. I've forgotten what FRUMEL had...they had two other letters. But everybody insisted on confirming everybody else's recoveries. Nobody trusted anybody else. But it was good, it worked,

and I think that, not very much was lost because it was, of course, a twenty^{four}-hour operation, a non-stop for four years. So that there was no question, really of, of wasting effort. The only thing that happened was that there was a certain amount of disagreement and acrimony developed, particularly between FRUPAC and NEGAT, and there would be a difference of opinion on translations every now and then, and, if it was serious, then, they would start screaming at one another.

SCHORRECK: I'd like to come back to that a little later, if I could. Again, prior to Pearl Harbor in OP-20-G in Washington, I'm trying to get, if I can, a reconstruction of what happened to a message when it came into Washington. How it got there, what happened to it when it did get there?

CURRIER: Most of the traffic that came into Washington, came in by mail. It was bundled and sent in by regular mail.

SCHORRECK: Were you receiving from Bainbridge now at this time? This is prior to Pearl Harbor.

CURRIER: Yeah, yeah.

SCHORRECK: And both FRUPAC and Corregidor?

CURRIER: Yes, there was no question, some traffic just before the war, began to come in electrically but most of it was sent in by mail and it didn't make any difference how long it took because up until the last few minutes...

SCHORRECK: Um hum.

CURRIER: FRUPAC, well, FRUMEL didn't exist. Corregidor and FRUPAC early on, worked on the traffic they copied and all ~~that~~ the traffic that came into Washington, so that they had an opportunity to work on the intercepts almost immediately, and Washington did not--not in the early period, anyway. As a matter of fact, all during the '30s, I think, probably the emphasis in Washington, in OP-20-G was on Naval Attache and diplomatic traffic. And as you probably know, there was an arrangement with the Army whereby we took one day and they took another in diplomatic, particularly on Purple, but on the lower grade diplomatic systems, where a lot of extremely interesting, valuable information was, we did pretty much every day. On the Naval Attache, of course, we did all we could all the time. All the Naval Attache traffic came in electrically. You see, it was, it was...I'd say all of it, I guess all of it didn't, but an awful lot of it did. Much of it was copied at Winter Harbor. Everything that was sent on the international radio circuits, which most of it was, by the way--almost all of it. Some of that came in electrically. Some of it was drop copy which we got from New York, which was very easy to get. Let's see, where else did we have it coming from? Most of it came from Winter Harbor. All of the European and Atlantic stuff did.

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SCHORRECK: What role was Cheltenham playing at that time?

CURRIER: I don't remember very much about Cheltenham before the war. It was a radio station, but I can't tell you very much about it because I don't, it never, it never occupied a prominent position in anything that I had anything to do with anyway.

SCHORRECK: I'm very, very puzzled by something which--I don't want to jump around--but, when the decision was made in March of 1942 for OP-20-G to begin analytical processing of current Japanese Naval systems...

CURRIER: Right.

SCHORRECK: I was puzzled as to where they were getting their intercept from.

CURRIER: Everywhere. This was, this you should be able to get pretty well laid out. Charlie Ford, who has died since, I think wrote up a good history of all that GY, no it wasn't GY, yeah, wait a minute...

SCHORRECK: GY1?

CURRIER: Yeah GY1.

SCHORRECK: He goes into the systems, but we're not sure where they came from.

CURRIER: Yeah, but the traffic handled^{ing...}. All of the material-- separate circuits were set up, and on which all material was sent to everybody, all intercepted material and it came in from Pearl, and from Bainbridge and we got

material from Australia too. Trying to think, where else?

SCHORRECK: Before the war?

CURRIER: Ah no, I'm talking really now about after the war started. Yeah. But it was all copiable and almost all of the traffic of any importance was copied and sent in and it all came in electrically. And there was special circuits set up to handle it, and they were dedicated circuits and they did nothing but handle traffic twenty-four hours a day. And the same circuits also handled all of the outgoing--recovery--code recovery--additive recoveries. This was all highly mechanized and it was a regular assembly line--hundreds of Waves.

SCHORRECK: This is what I need to find some more information about-- the circuits that were created.

CURRIER: Yeah, well, Charlie Ford wrote all that up and it's around somewhere.

SCHORRECK: We had a very interesting--a very disturbing experience-- twelve boxes of material were recalled from Crane in 1962.

CURRIER: Um hum.

SCHORRECK: We've only recovered three or four and the rest of that stuff was given out to people.

CURRIER: What was it? Do you know? Do you remember?

SCHORRECK: We don't know all--we don't know all the, all the things that were in there. There were, we think there were some very good material in there, and they just ^{dispersed} disbursed it out among friends when it got back here.

CURRIER: I don't recall, I don't recall that a...

SCHORRECK: Oh we know who it was. We know who recalled it. Well if I could get back a minute.

CURRIER: Yeah.

SCHORRECK: Mr. Raven said that the organization of OP-20-G itself, with the creation of all the different sub-sections, really grew out of the Purple Watch.

CURRIER: Ah. ...mmm?

SCHORRECK: From the standpoint that they had to do a lot of things themselves and then as more people came in these functions were turned over and created separate sub-sections.

CURRIER: Yeah, I wouldn't, I wouldn't agree that it grew out of the Purple Watch because there was another watch long before there was a Purple Watch. Particularly what became eventually the GZ watch desk was Rosie Mason and me. That's all there was. By the way, Admiral Mason is still alive, although he had a laryngotomy^{ectomy}. He talks but with some slight difficulty. I don't know if anyone's told you about him or not.

SCHORRECK: We, we knew about that.

CURRIER: And Rufe Taylor, Admiral Taylor, who's now in South Carolina, he retired. His last job was, was Deputy CIA. He had been ONI, but he is a man who, he was a Japanese linguist. He went to Corregidor, served at Pearl. He spent most of his time right here in Washington. That is the last two years. He will be able to give you an enormous amount of first-hand information. He was also in charge of the Navy TICOM business right after the bombing survey.

SCHORRECK: Um hum.

CURRIER: In September '45 with Admiral Austin (?). He and Fred Woodruff.

SCHORRECK: We want to get to Fred Woodruff before it's too late too. How did this evolve? How did the subsections evolve?

CURRIER: That was done quite by design. I mean, up until the time we moved out to Nebraska Avenue in February 1943, we were very cramped for space, of course, and in the sixth wing of the Navy Department, we had almost a ludicrously small amount of space allotted to each group. And the material and the watches that were set up, in what became GZ, it was not GZ then, it was...Lord only knows what...I don't know, I'm not even...

SCHORRECK: GY probably.

CURRIER: No, it wasn't GY. I'm not sure it even had a name or a title. If it is, if we did have, I've forgotten. Rosie

Mason and I set up that watch desk and we put a cot in the office and one or the other was there twenty-four hours a day for the entire time until we moved out to Nebraska Avenue, in February '43.

SCHORRECK: We saw some organizational charts that were created in 1935.

CURRIER: Um hum.

SCHORRECK: And we know that there was a GS, and a GC and a GY.

CURRIER: Yeah, that's right there were.

SCHORRECK: And that...Were these real?

CURRIER: Yeah.

SCHORRECK: Or were, was it a few people doing all this?

CURRIER: Oh it was, it was a few people, but it was real enough. For instance, the...in the '30s there were maybe four cryptanalysts and four language officers and three civilian linguists. That was about it. As we approached closer to the '40s, we gradually got in additional people and when it was obvious that there was going to be a war, which was obvious in 1939, we slowly began to call in reservists. Among the first that came was Raven, Lynn, Brotherhood, Bobby Lee, Chisholm. I think they all came in 1940. The first three that came together were Raven, Bobby Lee and Lynn. They all came together. Then Brotherhood and Chisholm, I think came along a little later, but I wouldn't be absolutely certain. This is,

this is all a matter of record...check on it, if you need to check on it, at all. And then ONI recalled some former language officers, some who had been to language school in Tokyo, but were not now serving as linguists. They were going, they were back in their regular duties as naval officers. Most of them--three of them--turned out to be less than valuable. They didn't really know what end was up, and it turned out that they were more in the way than they were used, so Rosie simply wouldn't have anything to do with them at all. And I was, at the time, sort of self-taught, but I had reached a point where at least he thought I was useful, and so he and I just did most of it ourselves that first seven months.

SCHORRECK: How was a message processed when it first was picked up in OP-20-G, when it was first received? What were the, do you recall the steps that were done--done to it?

CURRIER: Well, it depended pretty much on which system it was in. All of the diplomatic systems were typed up as they came in, whether by mail or otherwise, and much of it was by mail, of course. That which came from Pearl--from Winter Harbor--came...That came by mail, too. There wasn't any electrical from Winter Harbor in the '30s that I can remember. But we did get material that was no more than two days old--some of it older, but most of it around two or three days old. Most of it came by mail. It came in

and was identified as to system, which was very simple because there was an indicator on it. It was then typed up by hand in a format and given to the Japanese linguists who were doing the diplomatic recovery. If the system was one which had been worked on, and recovered such values as were known were filled in and then additional recovery work was done. It didn't take all that time to complete most of it in minor systems. And then the chart was made out with the recovered values on it and each of, the linguists, the linguists and translators and book breakers, and intelligence analysts, if you will, all in one. As soon as that work was done, each message that could be filled in... When the recovery reached the stage in which it was profitable to fill in by hand some of the values that were recovered, this was done by one or two other people, and I count one other person, as a matter of fact, I think, originally, there may have been two later on, who, when the messages were typed up, filled in the values that were recovered. But, you must understand there wasn't that much traffic and it might have been...maybe 50 or 60 messages a day and not much more than that.

SCHORRECK: Was there an extensive use of machines during this period?

CURRIER: Yeah. The only machines that we had were the IBM sorter, collator. They used those machines for most of the larger naval systems in that they simply made up runs which allowed

the book breakers to work on the material more readily, that is pretty much, nothing but runs on code groupings and that was about the extent of it. They did, they did certain other things, of course, but mostly listing--listing, collating, and printing--that was really about the extent of it. The machine room wasn't any bigger than this room. It grew, of course, but in the early--in the mid-'30s it was no bigger than this room. There were something like four people on it.

SCHORRECK: What was the attitude of the higher authorities, regular naval officers, toward COMINT in this period?

CURRIER: Well, of course, I would--the majority of them didn't really understand it, some of them didn't believe it. All of the material was sent to ONI, and not to the Fleet directly. It was, to a degree, compartmented, as it became later on. There was a special group in ONI that handled it. Of the Japanese Red material, that is the naval attache material--the Red machine, this was handled specially. The diplomatic material was typed up, and handled and delivered to ONI especially, and thence to the White House and various other places. As far as naval officers, individually of concern and command at sea, they had even up until now, had very little contact with it. And it wasn't until, well, I guess, yeah by the mid-'30s each of the fleet intelligence officers had

been indoctrinated and was aware of what was going on and was pretty much in sympathy with the program as such, and knew it's value and was able to interpret to his commander or to the senior intelligence officer the material that was sent him, especially, and it was sent in a special system.

SCHORRECK: But was it difficult to get the tactical commanders to accept it?

CURRIER: I can't answer that question, first-hand information. In the main, no, I don't think it was not really. There were a good many who didn't understand it or know how it was obtained, and they felt a little taken aback at being told that they couldn't be told what it was coming from...but beyond that I think, in the main, the great majority of them, yes, they accepted it and they accepted their intelligence officer's work. I imagine...I'm guessing, that if there had been a conflict between hard intelligence and COMINT, they might have been inclined to take the hard intelligence, as being a little bit better source than the COMINT. They hadn't learned yet that it was usually the other way around.

SCHORRECK: So that in the early period before Pearl Harbor, the major disseminator of information to higher levels would have been ONI?

CURRIER: Yeah, yeah. They would, in the main, they would have. In fact, they were the only...in the early days, in 1930 from 1930 thru 1939, probably, they were just about the only channel.

SCHORRECK: There was a closer relationship than I had thought between ONI....

CURRIER: Well, it wasn't that, well, you see, you're confusing, not confusing, but there were two periods that were completely different. One was the period up to the war and the other was the period after the war, when ONI as a central Washington organization was really cut out of the tactical picture and everything went direct. But this was quite a different organization.

SCHORRECK: Right. As we move closer to Pearl Harbor and actually get involved in the, in the attack on Pearl Harbor, there have been rumors which we've heard from time to time, that at the time, after December 7, there were rumors circulating in Washington, that our COMINT people in Pearl Harbor had been deceived by the Japanese practice of radio deception in the attack. Had you heard that rumor?

CURRIER: Yeah, it's not true. It...I have never yet seen one piece of hard evidence or talked to anyone who was at Pearl at the time who said that anything like this ever happened. I think the story began to gain a certain

currency after the war as a result of certain of the material that came from the Japanese themselves after, right at the end of the war--between August and December '45. I can't be sure of this, but I've seen in Japanese, several stories about how the Japanese fooled the Americans. I don't recall ever having any of this happen to me and I never saw any material which as far as I was concerned was ever anything but genuine, and didn't in fact turn out to be so. Now this doesn't mean that there weren't cases of it, and if it happened before Pearl Harbor, and if it was done to an extent that did, in fact, actually permit the Japanese to introduce false information into their communications and thereby mislead the United States, then I don't know anything about it.

SCHORRECK: We haven't, we haven't seen anything. We just heard these rumors.

CURRIER: I doubt, I doubt very seriously and I honestly I would think that many of those rumors may well have arisen after the war as a result of Japanese published material.

SCHORRECK: If I could ask one more question on this early period? What was the relationship between...? There are two relationships, really, I'd like to get to...One between communications people and intelligence people, and between regular Naval officers and reserve Naval officers, in regard to COMINT.

CURRIER: Well, in the very early '30s--well, in the '30s, OP-20-G, of course, was part of OP-20, and OP-20 was communications.

SCHORRECK: Right, → And the rank of OP-20-G, in that early period, was either Lieutenant or Lieutenant Commander. The DNC was always a Captain. All of the material and all of the money which came to OP-20-G, came through DNC, but it was a dedicated budget and the money which was spent by OP-20, by OP-20-G, in the name of OP-20, to do such things as buy material and set up intercept stations and that sort of thing, was their own money to be spent as they saw fit. And the...I wasn't personally aware of the budget making process at that stage being relatively junior, and not having to do anything with it, and I wouldn't have wanted to if I had. The decision as to how much money should we spend for what, was not determined solely by DNC, it was determined by DNI and DNC together, at that level.

SCHORRECK: But there, but there seemed to be a great deal more decentralization as far as OP-20-G's control of its own operation--complete control--had nothing to do with, with the administrative control exercised by OP-20 over the rest of OP-20's...

CURRIER: No, none at all. We ran everything ourselves, all the stations were run entirely by OP-20 with money granted by OP-20, actually, at the budget level.

SCHORRECK: Did an antagonism develop between the communications people, those who had come up within the COMINT business, those in the actual COMINT business, there were those who had come up through the communications system, and there was those who came up through intelligence.

CURRIER: Yeah.

SCHORRECK: Was there any antagonism between these two?

CURRIER: No, no. There were a few people who had sharp tongues, but no, there really wasn't.

SCHORRECK: How about between the regular and the reserve officers?

CURRIER: Well, there were no reserve officers around until 1940.

SCHORRECK: Right, at this later period?

CURRIER: Now, there were programs that were run, as you probably know, by OP-20-G for CVX reserve units, and that's Communication Volunteer Specialists. In fact, before it was CVX it was CVS. That's what I was. And that was run as part of the reserve program. That portion of the CVS program which had to do entirely with communications and COMINT were run by OP-20-G. That portion of the program that had to do with regular things such as taking standard Naval Reserve correspondence courses were run by the Naval Reserve, and I took a lot of those too. But as far as antagonism--no. Everyone knew that those people were already spoken for and they would not, except under extraordinary circumstances, go into the regular

communication organization. They were to come into OP-20-G. And that's what their entire program was. That's the way their entire program was run.

SCHORRECK: Let's return to that other thing a minute. It seemed as though this business of decentralization, in the early period it was...that field stations were largely operating under their own discretion, as it were.

CURRIER: Yeah.

SCHORRECK: Very little control from Washington?

CURRIER: No, Washington couldn't control them. They didn't have the facilities for gathering the information in order that they could control them. You have to remember that this was a one target, one-nation effort and the only thing that had to be brought home to the intercept station, was, that you copy all of the Japanese traffic you can find and set up whatever is necessary, whatever system is necessary, in order to get most of it. Such as, for instance, keeping track of all frequencies, solving call sign systems, establishing schedules between major stations, and then copying all the traffic that was sent on the schedules, and by these means. And it was relatively simple. In fact, there's nothing else really to it. There was no attempt on the part of anyone in Washington or Pearl or anywhere else to analyze the material that had been sent back and after that analysis to send out.

coverage control data to the stations. Except in rare instances, there were neither people or time. And the stations were doing quite well on their own so there was no need to.

SCHORRECK: As the war developed--had started and then developed-- within these first six months, what changes occurred in your operations as a result of this decision to go?

CURRIER: Let me just go, I want to go out to get a coke.

SCHORRECK: Yeah.

(CURRIER LEAVES AND RETURNS)

SCHORRECK: If we can get back and say that when Washington made the decision to go current, what changes did this cause in your operation?

CURRIER: Well, it didn't...the only thing that it caused, was as far as GZ was concerned, was that it meant that we got, on a regular basis, delivered every x minutes by somebody running down the corridor, a lot of current traffic. It was...it continued to be that way. Delivered by hand from the Com Center where it came in, and where they had an enormous organization set up. Well, not enormous to begin with, it became an enormous organization, and a very effective one, extremely well run. In the beginning, of course, it simply began to come in more rapidly and be more current. And I didn't notice anything other than that, personally. I knew what was going on but as far as

we were concerned, the only thing that was apparent was that there was, after they made the change-over, more current traffic and that's about all I can say. There wasn't much of anything else that happened because, you see, there was so few people involved. It wasn't a great upheaval. There wasn't a great reorganization. There was still, probably...I'm trying to think, in the actual section when the material was handled, my recollection is that there wasn't more than a couple dozen of people all told. I may be wrong, but there weren't very many more than that, that were actually handling the traffic. That is tearing it apart, typing up what had to be typed up, doing what had to be done to it so that it could get to the people that were--either one working on it and trying to break and/or translating it and sending it out.

SCHORRECK: And it was now beginning to come in more electrically, wasn't it?

CURRIER: Yeah, it was and I don't know when precisely they started dedicating circuits for COMINT use. But I think it was about that period and if you've got some notes on it, then that's the right date. I couldn't tell you...

SCHORRECK: It was March, March 1942. They jumped then from, I don't know what they had before that, I can figure it out, but I know that there were about seventeen sub-section in the new reorganization in March 1942.

CURRIER: A lot of that reorganizing, slipped me by. It didn't affect me at all, and while I knew that something was going on, it didn't make any difference as far as I could tell, at the moment. It gradually did.

SCHORRECK: Well in January, of course this was when Commander Safford was moved over to OP-20-Q, Commander Redmond came in...

CURRIER: Yeah.

SCHORRECK: And then went from there.

CURRIER: Of course Commander Redmond^{ar} was a controversial character, both he and his brother, Joe. Both had been DMZ^{NC}. Both either had been or were about to be.

SCHORRECK: Right.

CURRIER: He rubbed our British friends the wrong way. We had quite a difficult time for a while...with the Redmond^{ar} brothers, particularly the younger, who was OP-20-G.

SCHORRECK: John?

CURRIER: Yeah, that's the one.

SCHORRECK: Jack.

CURRIER: Jack, rather.

SCHORRECK: And I know he didn't have much use for Rochefort's people.

CURRIER: No, he didn't, and he didn't have much use for Rochefort. Now, and because of this I think his views of what went on and what was accomplished...

TAPE 1, SIDE 2

CURRIER: ...people outside of communications. I don't quite know why. He was apparently a good naval officer too, but he and his brother were. But he was...he had tunnel vision as far as anything except the Navy and communications was concerned. That's the way it seemed to me. Although I was never at any time felt that I was in a position not to be quite willing to work for him or with him or anything else.

SCHORRECK: How would you evaluate the different areas that were working--the Hawaiian unit and Melbourne unit. As to their, as to their...?

CURRIER: Yeah, now you're talking about somewhat later on when they actually got going. When people had been hauled out of Corregidor and they'd been set up in FRUMEL and gotten their communication assigned and gotten different people assigned and that sort of thing. FRUMEL was always at a disadvantage, they didn't have, until much later in the war, anything like as many people or as many good people. Pearl had the benefit of being at the seat of all power in the Pacific. And they, the people who made the decisions, had direct access, not only to, to the little rooms where the messages were translated, but they could go right to the intercept stations, if they wanted to.

That closeness gives a certain pungency to operations. This was missing in Washington, but on the other hand we had probably more really good people than they did. Although they would never admit it. We did have some very good youngsters and for the first two years of the war we got, I think, most although not all, most of the very best of the language students. The two initial ^{most} classes came from Harvard, if I remember correctly. Made up of almost solely of people who had a certain Japanese background--either missionaries' children or people who had lived extensively in Japan or had some connection with it and knew a certain amount of Japanese before.

SCHORRECK: Did you have your own linguists by now and ONI was pretty much out of it?

CURRIER: Yeah, that's right. ONI was as far as we were concerned, out of it completely. The linguists came and were hired directly by OP-20-G, but the source of linguists in the early period was Harvard and Yale. I may have them in reverse, but and I'm not sure they operated concurrently but I think they did. And at the end of this period and at the time the Navy had established its own Japanese language school, it was done for two reasons. One--to supply intelligence linguists for use in Washington, Pearl and FRUMEL and secondly as combat interpre^eters to go with the Marines, principally the Marines, in order

that we get more out of our intelligence gathering activities ashore. So that toward the middle of the war, my guess is that about half, although I may be wrong, about half the linguists went into the Pacific, into the combat zones as really combat interpreters^e and interrogators. And the, of course, what was it called, the Pacific Interrogators?

SCHORRECK:

ATIS?

CURRIER:

No, wait a minute, that was the Allied Translators Interpreter^e Service. Well, they hired everybody-- Australians, and renegade Japanese, and Papuans (?) and Lord only knows what else. And they got some of the ~~damnedest~~ document translations out of them. I'll never forget one. It was a translation of a series of messages that had been captured, I think one, I think a destroyer ran aground or something--I've forgotten the source of the material or something like that. Somewhere down in the South Pacific. And all of this and the entire message file was captured almost in tact. A bit wet but it was legible. And the messages that had been broken out and written out in good Japanese were all translated by ATIS and sent back and we'd get copies of them. And most amazing because a lot of the work was done by people who had been speaking Japanese all their lives. And they were almost unintelligible.

SCHORRECK: Hum.

CURRIER: The use of abbreviations by Japanese in military jargon, as the U.S. Navy does or the Army does, was quite foreign to them and completely beyond them. I remember something that came out to the first water fighting unit, that was Sub-div One and they just translated every character as it's meaning would indicate and not knowing what they were abbreviations of or how they should actually be read, this sort of thing.

SCHORRECK: When of course the war began and for the first six months up until Midway, we were on the defensive.

CURRIER: Um hum.

SCHORRECK: Which I personally, I think COMINT can play a much greater role when you're on the defensive.

CURRIER: Well, it depends on how things are going. We were really hard put of course, to get back into the fight after the Pearl Harbor unpleasantness. And also from a COMINT point of view, we didn't have all that many people actually working and the length of time it took to try to get back into the systems out of which we had gotten just before Pearl, and to start working on the principal systems involved and recovering code groups and so on took a little while. As a matter of fact, up to Midway there was a great deal of ^{brouhaha} oo-la-la between FRUPAC and Washington--what various code groups meant. There

weren't very many. And they still, by the way I think I saw not all that long ago maybe eight or ten years ago, two people from who had served with FRUPAC and one in Washington, who were still arguing about the value of a code group.

SCHORRECK: They're doing it right now. Arguing about...about the relative merits of build units...It's something else. Did you feel a great, as these things were building up, especially Midway rather than Coral Sea, did you really feel a sense of urgency in the organization?

CURRIER: Yeah. Well I don't know if it was within the organization. I don't think I think the only people who felt a sense of urgency really were those who were looking at the traffic and ^{realizing} reading, that there was more there than they could really dig out but they knew from snatches here and there that had been recovered that something big was in the run.

SCHORRECK: Good morning, sorry for the interruptions.

...a degree of urgency within, by certain people or whomever within the organization up to Midway as things were beginning to build up. Were those people who actually saw...

CURRIER: Well the only people that I came in direct contact with that obviously felt the sense of urgency were Rosie Mason and myself. Now this was the period--you see, Midway

was June 4th wasn't it? 4, 5, 6, 7?

CURRIER:

4th being my birthday and I had the watch. But the period from April, well ⁵⁰⁴ ~~saw~~ two months prior to Midway, I can't be precise about time 30 years ago, the, that was the period when it was obvious that we were going to spend, really spend 24 hours a day, keeping as close track as we possibly could, all the material that we could get our hands on. This same feeling must have been apparent, I'm sure it was. I wasn't there...as a matter of fact even more so. And the sense of urgency at Pearl was obviously greater because they were in the area where the counterattacks would be planned where the strategy for the next x months was being ^{mailed, I would think} mauled over where it was more active command-- active command relationships which were obvious and were being made felt by the COMINT group. So that they were being pestered by the operation types all the time. So that they were the ones who felt the greatest sense of urgency. But we in Washington at the time, knew that all of this was going on, of course we were in fact communicating with one another even though we didn't always agree, and we did arrange to spend even more time, if that were possible of doing, obvious necessary. I don't remember, I honestly can't remember any other special arrangements that we made except to be sure that there was always one, I guess at that time, by that time, one of three of us in

the office all the time. One of us had to be there. And for a time--two of us--one of two of us. Now the material that was coming in at the time obviously had to be handled slightly differently. I don't know what arrangements were made in the machine room for reproducing traffic, I don't remember anything special that was done to speed up the delivery of traffic from the point of intercepting to Washington. It must have been otherwise things wouldn't have happened the way they did. And you probably must have sources that would indicate about what we did during that period to produce this kind of additional flow.

SCHORRECK: Did you know that it was going to be Midway before it took place? Was there any doubt about it in your mind?

CURRIER: Ah.

SCHORRECK: Were there arguments going on about where they were going to go?

CURRIER: Gee, I'd have to go back and look at some of the traffic. I can't remember. I remember I'm trying to think of that area designator system.

SCHORRECK: You mean the AF and all that business?

CURRIER: That's right. I'm trying to think when that first came out, and when we first threw out the matrix and filled in with letters. Established where some of these locations were--Wake and Marcus.

SCHORRECK: Weren't they based on who possessed the Islands like A stood for an American position?

CURRIER: No, the whole Pacific was A.

SCHORRECK: Was there grid then?

CURRIER: Straight grid, alphabetically.

SCHORRECK: Because someone told me that it was based on American position versus British positions.

CURRIER: Could be. The whole Pacific was all A something, as far as I can remember. I don't remember any that weren't. I'm trying to think what the...

SCHORRECK: RPZ

CURRIER: Yeah, that's right, yeah. When you get down to the end-- that's right. You're so right. Yeah, see there's so much of this that I--it's been a long time.

SCHORRECK: Right.

CURRIER: If, for instance, I looked at any of the material, it would all come flooding back but it's awful difficult.

SCHORRECK: Early, early in '42 at the very latest.

CURRIER: Yeah. Well, I know we fussed a lot about AF and there was a great deal of disagreement as to where it was, and as to what in fact was meant by some of the messages in which there was nothing recovered except the letters A and F in the code group as I remember.

SCHORRECK: Did you have to break the codes to learn the designator?

CURRIER: Well it was being broken. It hadn't changed since Pearl Harbor.

SCHORRECK: Yeah, but did you have to get into the text of the message in order to determine whether it was one particular geographic location as opposed to another.

CURRIER: Well in solving, in getting the values for the code groups, the assignment of Roman letter values to code groups came as a result of something I just can't remember. We started to recover code groups--spell groups for instance--spelling English words, place names and so on and then it became apparent that these were being, the series of these that were being sent all beginning with an A and sometimes in quotes and sometimes in brackets and various things. So the, then in several messages, as I recall, it would be someone departing an AF for so and so at such a time. So they were obviously place names or areas at least if not place names. But I can't remember precisely when we first stumbled on it but it was early in '42. I would guess maybe in March, I don't know but sometime before Midway. So that by the time of Midway there had been enough code group recovery done so that it was obvious by the end of May anyway, that there was something really big in the wind and the location and the number of ships and the precisely and the type of ships that were involved were always a matter of argument

between FRUPAC and Washington. But as I said the details of this are so fuzzy in my mind that I couldn't really give you any specific answers without looking at material, than I could.

SCHORRECK: I was wondering if the traffic analysts were of assistance to you?

CURRIER: Ah.

SCHORRECK: Particularly on geographic locations.

CURRIER: Not a great deal. As I recall, although I may be wrong, most of the TA material wouldn't have divulged or helped us determine what the locations were. Once the code groups had been recovered firmly as English letters and once the combination of letters had proven to be geographical locations, there was precious little that TA could produce that I can think of that would help us identify these locations. It was done primarily as I recall in the beginning, by associations in the message, courses laid out between two places, actual identification of weight, I think and from there on it was not all that difficult to lay out the matrix because it was in alphabetical order I suppose--in both directions.

SCHORRECK: You had a lot of designations at the conclusion.

CURRIER: That's right, oh yeah.

SCHORRECK: Captain, Mr. Raven made a statement the other day that his group, the crew that he was in charge of in OP-20-G...

CURRIER: GY.

SCHORRECK: GY, he claimed that there was a great deal of help which the minor cipher people gave to JN25 group from solutions that they had made and passed on to...

CURRIER: Yeah. There were later on, not early in the war but later on, there were on many occasions duplicates sent to more than one system. This was the most valuable type of information and particularly when the minor system was almost completely solved and we could line up the minor system values with the JN25 material that was in the process of being solved. We'd get an enormous leg up by checking the few established code groups against those values in the minor system which had been previously read and then filling in tentative values for the others and then checking in the rest of the material which it was incalculable...Yeah. Later on toward the end of the war when JN157 and when they were being read more currently, that material we used to check our recoveries but surprisingly enough we had reached a point then when we had so much background material and an enormous amount of statistical material on code group values on all the previous systems we had recovered and captured and checked that we just be use of frequency alone, you could be absolutely 100% certain of the value of that particular code group--once you got a few footholes in the new system.

And it didn't take long to get back into even a 50,000 group two-ply system because we simply had so much. By the way did you run across any captured code books in Crane?

SCHORRECK: I haven't yet. I think these are out at Holabird. I'm convinced that Holabird is a treasure^{trove}...

CURRIER: I tell you if I could just sit and smell those for a minute I'd remember so much. They had a particular smell, so many of them. Some had holes in them, some of them had a little blood on them here and there. A lot of them had been buried. But they all had red covers. In fact, those were the instructions--we use to give our Marine ~~radio line.~~ ^{raiding parties} It was always a section, right from very close in the beginning, whose sole responsibility was to go directly to the communications center, pick up anything with a red cover and get back to it and don't get killed. And we got material right from the beginning and, of course, Guadalcanal we got a lot but even before that when the Markus (?) --when the British and Australians-- when the Marines went ashore on Naha in the Ryukyus. It was the very first Marine raid of the war. I can't remember. Anyway, we got material from there and from then on we got enough captured material so that we were able to check all our work and in the majority of cases we were able to check all our work and in the majority

of cases we were, we recovered say 5,000 codewords out of I'd say 50,000. We could read 99% of the traffic and about 98% of our recoveries were absolutely correct. This was, of course, after the first year in the war when we had some experience. We, as I say, had so much background material. Millions and millions and millions of messages laid out on great long tables that took up an entire room, three times as big as this hallway (not quite, I'm exaggerating). But the material was rerun and reprinted every time there were two or three hundred additional recoveries. Everything was rerun again and reprinted and laid out on these great tables so that you could find all the index--indices for each of the systems laid out in strategic places and so that the youngsters who did a lot of the code breaking spent most of the time running up and down these great long tables. And it was a very effective system. Then there were little cubby holes around made by those who--senior watch officers or something who wanted a little bit more material around where they could keep their own notes and do their own work. But this was very effective. The crew had been effective.

SCHORRECK: What could be obtained from a message just by looking at it in it's raw form once it had been copied? Not the crypt that had broken it just the...

CURRIER: Not a great deal. The same, well that's not quite true. The callsign recovery was--was quite far advanced and they didn't fall all that far behind even though they weren't always able to recover the actual system itself. They were always able to recover enough of the callsigns and address groups and procedures so that they could tell to whom the message was going, externally, and who sent it and if they had a chance, they would get fairly decent bearing of the transmitter.

SCHORRECK: Those were in cipher?

CURRIER: Oh everything was in cipher. Yeah. Now, the headings were not all in cipher. They changed calls every day but--as we did--but the material, say mid-war, was of such volume that it wasn't all that difficult for the TA to be right back on top of the principle originators by an hour after the call was changed. Because they had all the background information of the previous day, all--most of it correctly identified and frequencies were not changed to the extent that they are under normal circumstances today, the tie-ins were much more direct and the accuracy of their identifications--with a small amount of material was greater. So that they had that and the information which was always included in the internal addresses was always in addition to but sometimes very closely parallel to the external addressees. There

was sometimes additional ones and sometimes additional instructions within a message to pass to someone who had not been previously addressed, that's all. No, there was a certain amount of useful information, but it came to be not ignored but reduced certainly to second place because as the war progressed we were reading so much so fast so frequently in advance of the addressee of the message, that there wasn't any need to rely on external TA. Frequently we read messages that the recipients couldn't read because of some error in cipher or in code. We were much more adept at clearing up their errors than they were. And they'd have to ask for retransmission or clarification and in the meantime we would have read the message, translated it, sent it out to the fleet who would have had in their hands a copy of the message that the Japanese recipient had not yet received.

SCHORRECK: Did the captured codebooks get back to you?

CURRIER: Yeah, they all came back.

SCHORRECK: A very direct order or did some of them go to Pearl Harbor and Australia?

CURRIER: Yeah, they went, yeah, some of them went to Pearl Harbor. I assume some of them went to Australia but we got all we needed. Now I don't think that at any point did we ever not get a copy.

SCHORRECK: Who's job was it to decide whether something came back from Washington?

CURRIER: Ah, I don't know whose specific job it was but it was made known under no uncertain terms that if they wanted to win the war they'd better damn well get it back here. I don't know who said this but it worked.

SCHORRECK: The Army Air Force flew them back?

CURRIER: I don't know.

SCHORRECK: I was just wondering who handled it.

CURRIER: I honestly don't know. I suspect that this is probably a guess but I honestly don't know. The a, well there was a Navy transport service even then. And ^{Marines} ~~brains~~ too, but I couldn't answer your question. I never thought about it, but I know they always came back and they came back quickly.

SCHORRECK: You got them in time to do you some good?

CURRIER: Yeah, oh yes. They would of done good at any time but they came back as quickly as they could. Of course, we had reams and reams of captured charts and other documents and diaries. Lord knows what--rooms full of stuff. And, oh such things as orders to officers, officer's registers and that sort of thing. These were great sources of information on code book recovery because there would be long personnel transfer messages sent in JN25 and if you had one character of a man's name and part of his serial

number, you would look up in the officer's register and find out where that character came in this line and you'd get the rest of his number and the rest of his name and you'd find out where he had been. It was duck soup to fill in the rest of it. But this sort of...

SCHORRECK: Did you make cards on those, on the...?

CURRIER: Ah, only in so--not as a rule. Only important ones. We had a lot of individual files were captured. But it didn't fall into the GD files--GI files, some of it did. Whenever a man's name if a long personnel message was translated and it really was because there was nothing of operational interest in them as a rule, this was something that took place as a matter of course and the only use to which that informationn was put was by the people who were actually working in the systems involved. They knew where the man went and if they got a message saying that so and so arrived and it happened to be in another system, that information was useful in recovering certain values in that system. But nobody in the Pacific cared "two hoots" about lieutenant so and so going from here to the hospital to get his tongue fixed and that sort of thing. So it was never, most of that never really was transferred. We didn't bother with that.

SCHORRECK: Who was in charge of GI during the war?

CURRIER: Gordon Daily.

SCHORRECK: Daisley.

CURRIER: Gordon Daisley.

SCHORRECK: Did he stay in charge during the war?

CURRIER: All during the war.

SCHORRECK: Where was Bertolet?

CURRIER: Sam was--surely he must have been at Pearl part of the time, he came back...

SCHORRECK: Do you remember working with him at GI?

CURRIER: Oh yeah. But he didn't--he must have--Sam must have left when we went out to Nebraska Avenue or before, because Gordon Daisley was GI all, all during the war. Gee, now I've forgotten. I just don't remember.

SCHORRECK: But you do remember working with him?

CURRIER: Oh I remember Sam, sure. Yeah. That's a blank. I just don't remember what happened. Wait a minute. Sam, let's see, Jeff Dennis was GT and Roby (SP?) was GA. Now on the Atlantic side they also had a GI filing system. They were all compartmented. Surely Sam Bertolet had that...I think that's probably. I wouldn't be absolutely certain.

SCHORRECK: Maybe you've already covered it when you talked about some of the people you worked with...

CURRIER: Not especially, no.

SCHORRECK: I always save the names until the end.

CURRIER: No, no.

SCHORRECK: I would like to ask a question. When you did, after the war started, you did begin to expand more and more, did the analytical process at Pearl Harbor described as being an assembly line type of operation, all followed the same kind of procedures, did you have that kind of operation?

CURRIER: Yeah, there were three assembly lines. There was a communication assembly line where all the incoming and outgoing traffic was handled very much on a personal assembly line basis. They did eventually hook up some conveyor belts of some sorts, but most of it was done by individuals, and within this organization. There was another minor group that handled the incoming and outgoing code recoveries. This was all done on an assembly line basis. In GY itself in the code recovery section, there were two or three rooms full of Waves, some of whom were very lovely and sort of relieved the boredom to a degree, who all had specific jobs in dealing with traffic. For instance, it was sorted at one point and fanned out and all the JN25s here, JN19s here and the JN57s and this was all hand work, every bit of it. And when the messages came in they went first of course, they were matched against an additive bank and if they could be placed the additives were--the messages were all copied off by hand in blue crayon on a sheet of 8 x 10 paper, three sections which there were two lines separated by a wide space

where we could write our recoveries ten groups to a line. These were all written out and we went into the additive room and if they could be placed immediately they were given to a group that wrote in the additives and performed the subtraction and wrote down that valid code group and then they went on to another section where if that particular code had been recovered sufficiently, the write-in values, the values were written in and about every five minutes somebody came running in from the GY into the GC Watch Officer's desk and put on his desk a great heap of paper that had been produced by 150 people. And the GY Watch Officer simply sat down and thumbed very quickly through them and until he came to me. And this is amazing but you could tell by one code group if the message was worth doing anything with or not. You reached that point of familiarity with what was going on. Then those were put out here. The batch which was not of immediate interest was simply laid aside. The most important of the messages, and this depended entirely on the GZ Watch Officer's opinion at the time, were he did one or two things. If it was really hot and he didn't trust anybody I'd do it myself. I'd go out and do whatever had to be done and recover the messages the code groups that were remaining to be covered, translate it, send it out, annotate it, and so on. If it was even too hard for me

to do alone, I'd divide it up and let other people do little pieces of it. And if there were certain additives that needed recovering which were blank and it was absolutely essential that they be recovered before the message was translated, I'd go into the (?) side of the room. This was where they had their top-notch additive recovery. Stu McClintock was one of them, tennis player who always whistled in diddly swat. So I'd sit down with them and tell them what I thought ought to do in there and I'd keep guessing until I'd guess the right one. And they'd recover the additive and try it and if it turned out to be right I'd rush back into the other room and write up the message and send it out of the COMSEC and that's all there was to it.

SCHORRECK: Where did the GT people fit into the act?

CURRIER: They would, they would, they handled traffic.

SCHORRECK: But in what contrary? Before you got it or after you got it or...?

CURRIER: The traffic actually came into the--one copy of it went-- let's see now--one copy came, came into the Com center, one copy went to GT and one copy went to GY. And GYs copy was handled as I just described. The GT copy, um, was used by them to assist in their additional callsign recovery. The value of the callsigns, I think I may be wrong on this because I've actually forgotten, I think.

~~HANDLE VIA COMINT CHANNELS ONLY~~

the callsign equivalence was up to GY where they were actually written. They appeared on the write-out sheets that were delivered to GZ by GY. So the values must have been sent to GY to be written in. In any event, they got written in some how. And then the GT, I use to frequently go down and if anything which seemed to be of potential value to them came out in translating a message, I'd simply go down and tell them that their recoveries were right. GI and GT, of course, were relatively close together and in fact they were in adjacent rooms. They would communicate directly all the time so that GT had access to the GI files as well as GCH, but everybody used the same material. It was a very efficient and very effective way of handling data and making it available to everyone who needed it without going to extra trouble to get it. After all everyone...

SCHORRECK: Once your process had reached the stage of producing an intelligence product it was asseminated by GI?

CURRIER: No. Well, I say no, yes, but at the direction of the GZ Watch Office. Every message that went out had to be translated and initialed by the GZ Watch Office. Everything which was done by anyone else working anywhere in GZ was brought to the watch officer's desk. Every and originally of course the GZ Watch Officer had to sort of check the translation. It would look sort of earthshaking to see

that it was in fact close enough. But in this regard by the way, we--I did anyway reach the point where I wouldn't hesitate to translate a message if only a third of the code groups were there. I'd leave a few blanks here and there but I could usually make a pretty good story and then I'd annotate it and say what it was. But if, if for instance, there was a message which may have been garbled or it may have been impossible to recover the codewords and it was obviously a operational, an immediate operational significance, then what I would do is take it and try to figure out what I thought it meant with the precise data in there so that while the translation might be some embroidery on the facts of the case, it was close enough to warrant action being taken immediately by operational units out in the Pacific.

SCHORRECK: You added your own comments?

CURRIER: We added our own--this is why I wanted you to get that daily GZ summary. We added our own comments right directly. And this went out on what was called the Com sec and it went direct. Now when I say direct, it went to the--directly to the Intelligence Officer of the fleet staff wherever he happened to be and he then in return interpreted it to the Admiral. But the actual messages were on many cases given verbatim. And if it was very hot and it so frequently was, I mean we spent half the

time sending out flashes that resulted in, oh countless, unbelievable confrontations and victories, of one sort or another. It was just--became common place. For instance, some of these long convoy messages which the actual group and precise turning point of the convoy--big oil convoys for instance, all the way from Indonesia to Sasebo-Yokohama, laid out with all the escorts and the escorts names and their distances and their precise instructions and so on. Messages like that would go out to Com Sub Pac and they just couldn't believe it. I talked with many submarine commanders after the war and during the war and he said somebody was certainly peeping over somebody's shoulder. They never really, after the first two or three, turned out to be right. They never questioned, never.

SCHORRECK: You had direct communication with Com Sub Pac?

CURRIER: Yeah, yeah. Well again when you say direct, it went to Com Sub Pac intelligence. And he was the man who did the actual relaying of the information to Com Sub Pac himself but it was so obviously genuine and so obviously extremely important that there was no time lost between getting the information from us to the men who had to make the tactical decision on the spot.

SCHORRECK: How did they send their directives out to the submarine?

CURRIER: I saw lots of them. They were all this sort of double talked.

SCHORRECK: In the clear?

CURRIER: Oh no nothing was ever sent in the clear. This was always in a perfectly secure system. But it was not a COMINT system. The material that went out to the actual submarine commanders, the captains themselves of patrol, would be such as: if you can arrange it, be at such and such a place at such and such a time and if you're lucky, I think you'll see so and so, something like that. And, or they'll say for instance, the--when, Halsey use to send out, Halsey and Nimitz and various others use to send out very fruity messages to their people based on COMINT information. I remember one which was sent out to the battleships by Nimitz and he said, "I've been told at such and such a place we were going to be", I've forgotten now exactly what he said, a couple of cruiser divisions and some live troop transports. He said, "I want you to be there and give them a few 16" ^{surprises} ~~rifles~~." And the--toward the middle of the war and...the last year of the war the submarine skippers began to rely so heavily ^{on} ~~from~~ information they had gotten from COMINT, ^{that} they figured they didn't have to do any looking on their own. They just waited and were told precisely where to go and this was what won the war. The convoys, big oil and food convoys from the

South were by ten months before the war was over, the attacks had resulted in probably 90% destruction to all of their tankers. I think there was one left at the end of the war. And it was solely the result of COMINT.

SCHORRECK: Did they have escorts?

CURRIER: Sure, but the escorts were of very little value if the submarines, all the U.S. submarines knew precisely where the convoy was going, how many ships were in it, what their station was, what their escorts were, what their escorts' names were and what the skippers' of the escorts name were. All they had to do was line themselves out and run deep and silent and just wait. And when they appeared pick them off.

SCHORRECK: Was this happening in '42?

CURRIER: No not that early. We didn't have enough information and we got all the information on convoys, troop convoys going South, of course, to the Philippines and Asia were earlier than this and all of this was aerial observation, precious little information on COMINT available. It would have been had we been reading it. It wasn't anything that early. See this was in January. January '42. No, there was not very much.

TAPE 2, SIDE 1

SCHORRECK: The intelligence teams, the radio intelligence teams afloat this period.

CURRIER: Which period are you talking about?

SCHORRECK: This is the first six months of the war.

CURRIER: I can't tell you precisely their composition nor precisely where they were. I would have thought, however, that that information was in the security brief writeup, isn't it?

SCHORRECK: No. We can find almost nothing. The only real confirmation we have from it is Mr. Raven who said that he saw some of this traffic much later but it was no good because it was too old.

CURRIER: Are you talking about afloat intercept teams?

SCHORRECK: Yeah.

CURRIER: There were precious few. As a matter of fact, I don't know of any. I don't know of any afloat intercept teams on men of war. There may have been one or two but I didn't know anything about it and I don't really think there were. Before this period, back in the ^{early 30s} 20s,...

SCHORRECK: The Goldstar?

CURRIER: Yeah the Goldstar and the Dollar Lines.

SCHORRECK: I didn't know about the Dollar Lines.

CURRIER: The Navy took a cabin on all the Transpacific trips of two of the Dollar Lines and put two men and two receivers in the cabin. And as they sailed back and forth across the Pacific, they'd read a certain amount of casual intercept as they could and develop what they could.

SCHORRECK: That's something. I never heard of that.

CURRIER: This began about before my time at some point, but I think they ran it for a while and I think they concluded finally that it was really not worth the expense and they stopped it. They weren't getting enough. I think it was after the, there were three intercept stations in the Pacific, and they were eventually called station A, B, and C. C was in Alongopo, B was Guam and A was...

SCHORRECK: Wahiawa or its predecessor?

CURRIER: No, I don't, that's what I'm trying to think. I don't think that originally Wahiawa was A. It seems to me it was Bainbridge, wasn't it? Well that information is available I know. Thats...

SCHORRECK: We have, we've found a log of the Yorktown from February to April which is the end of the log is as far as anybody can tell so far, they reported on board a fellow by the name of Baird. *BI-A-R-D*

CURRIER: Tex Baird?

SCHORRECK: I don't know. I know what his initials are. I think they were F. Something.

CURRIER: Tex Baird was a language student. What was the date?

SCHORRECK: He reported on board in February 1942 and he stayed until the end of the log and he was Assistant Combat Intelligence Officer.

CURRIER: I'm pretty certain that's Tex Baird.

SCHORRECK: Now some fellows from the California Band remembered that Pete Panyon and Mike Palchevesky they remembered that they thought that there was a guy that use to be around Rochefort's ship by the name of Baird. I'm trying to tie him into COMINT.

CURRIER: I know it. Well he was--you see--several of the language officers in the late 20s and early 30s were all given intelligence duties at sea. And after the war started there was an attempt on the part of the Navy to supply Major Commanders with a language officer.

SCHORRECK: Who would serve as an intelligence officer?

CURRIER: Yeah, he was an assistant intelligence officer usually. Now, Tex Baird, let's see now he would have been--I think he was a language class before Rufe Taylor. Rufe Taylor and Tom Mackie and Bill Richardson and one other. There were four. They were in the language class that was stopped rather abruptly in early 1941. And they went to Corregidor. Anyway, my feeling is that Tex Baird was one of these later language students and I'm pretty certain that you'll find, you can look at his record in the Navy

Department. I think you'll find that he was the one who went to the Yorktown as Assistant of Intelligence.

SCHORRECK: There's a story which has become a legend within the COMINT business that at Coral Sea, the Pearl Harbor unit had sent out a fellow by the name of Lieutenant Joe Fulinwider as a voice intercept man for the Yorktown and, of course, he was on the--the Lexington--I'm sorry--the Lexington and then of course, he was on it when it sank. He came back and they sent him out on the Yorktown at Midway and, of course, Yorktown sank. And the story of the legend has it that nobody--they wouldn't accept Fulinwider any more.

CURRIER: Oh Ranson Fulinwider.

SCHORRECK: Ran^{son} Fulinwider, that's it.

CURRIER: Yes, well he was a good friend of mine. His father was an Admiral and his brother was a Captain also. And he, Fully, was here in Washington for a while and then he--so I guess that was the last two years of the war. And I knew him quite well. He died not too long ago.

SCHORRECK: Oh that's too bad.

CURRIER: In fact, I think he died in a car driving up to the North or something a year or two ago. Somebody sent me a clipping.

SCHORRECK: Had you heard that story about him?

CURRIER: Ah, very vaguely, yeah. I had, yeah.

SCHORRECK: Admiral Stroup said that he was the, what was he, was he the Intelligence Officer on the Lexington at Coral Sea?

CURRIER: He would of been the Assistant Intelligence Officer. You see, he was the language officer.

SCHORRECK: He said in a phone conversation with Captain Ohgenus, Executive Officer of the school, that he distinctly remembered that there was a temporary RI shack built for the Lexington.

CURRIER: Yeah there was, I'm sure. But these are the things that I honestly don't have any first hand--first hand information on.

SCHORRECK: We can't--we find it difficult to pin him down. We just can't trace him.

CURRIER: I am surprised that there isn't something of that in what Jack (^{Hooker?} ?) wrote. I don't remember reading it by the way when I read it the first time.

SCHORRECK: I don't recall it either.

CURRIER: Let me think of who else might be able to remember. Gosh I don't. I honestly don't. Maybe Rufe Taylor might. He might.

SCHORRECK: Some of these "over the roof gang" people might be able to help us out.

CURRIER: They might, they might possibly be able to, yeah, yeah.

SCHORRECK: Somebody stated that after Washington began working on current intercepts, they got most of their stuff from

Bainbridge, Cheltenham, the Winter Harbor and Jupiter.

Is that true?

CURRIER: Well the first three, the first three, well Winter Harbor, all the Atlantic ^{traffic} ~~packages~~ came from Winter Harbor, all the German submarines ^{traffic}.

SCHORRECK: Yeah but this was in reference to Japanese.

CURRIER: There wasn't very much in Japanese copied at Winter Harbor and one at Jupiter as far as I know. This, no I'm quite certain not. I certainly never saw any. I wouldn't have believed it possible to copy ^{it} in the first place. No I don't think so and I know that all the German submarine traffic came from Winter Harbor.

SCHORRECK: Well then, when Washington did go current they must have been getting all their stuff electrically from Bainbridge.

CURRIER: They got, yeah. They got all of the, all of the traffic from Bainbridge came electrically that's right, it did.

SCHORRECK: I remember a letter that I had from Admiral Nimitz regarding (^{Halsey} _____) and he said...go ahead.

CURRIER: I just happened to think of something. You know they talk about (^{Dr. Tordella} _____) officer in charge at Bainbridge.

SCHORRECK: Right.

CURRIER: Did you ask him?

SCHORRECK: We haven't asked him yet.

CURRIER: Okay.

SCHORRECK: We intend to, but Admiral Nimitz was saying to Admiral Halsey, "You don't know how this works but I'm going to tell you." And one of the things he said, he went through the whole organization and came to a part about Wahiawa-- getting intercept from Wahiawa to Pearl Harbor and he said, "It's after the case that Bainbridge will intercept a message, relay it to Washington. Washington will have it back out before the motorcycle can get from Wahiawa to Pearl Harbor with it."

CURRIER: Yeah, this did happen on occasion. It was sort of an intuitive force sort of thing, but it did occasionally happen. Yes, this is true. And there was in many areas almost 100% duplication in intercept. Sometimes there would be ten copies of a single message. Sometimes we needed it because in order to get one good one it required that we compare all ten to get precisely, I mean the most correct copy.

SCHORRECK: I have a question on dissemination. It went via the Com Callsign--CINCPACCOM, G16...

CURRIER: That's right.

SCHORRECK: Was there a special means of getting it after GZ had initially gotten it from OP-20-G to COMINT?

CURRIER: Oh yeah. That all went right down town also copies of it that didn't go to Com circuit.

SCHORRECK: Right.

CURRIER: The COMINTs got copies of everything. And as far as I know there was a circuit in between them.

The hard copy, the GZ Summary and various other things of that sort, were hand carried downtown...

SCHORRECK: To COMINT? Do you recall where they went in COMINT?

CURRIER: No, I never took them. I really don't know.

SCHORRECK: Then it would be COMINT's job to get it out from there to anybody else ONI, White House, British London, higher Army?

CURRIER: No. Ah, we communicated directly with GC & CS.

SCHORRECK: OP-20-G did?

CURRIER: Yeah. But this was--well there were two lines of communication, one from the Atlantic side on the German problem which was run very closely in coordination with GC & CS, and on the Japanese side the information and communications went directly to Columbo and Candeni (sp ?) and out into the British field stations. I don't remember precisely what the intermediate steps were, but we cummunicated directly with them as we did at FRUMEL, FRUPAC and...Now it may have been at one time early on retransmissions from Bletchley. But I just know how the communications went at that particular time. When I first came back from that mission in the 1940s, I brought back a--some additive tables and a couple of codebooks which we used to communicate with the British and at that

time it meant hand encrypting all of the messages so that we didn't send a great deal, we didn't spend any raw traffic. These were done--I originally had to do them because they didn't trust anybody else to do them. Then eventually it was given to someone else, regular communicators and they did it.

SCHORRECK:

Um hum.

CURRIER:

But I must admit I'm a bit fuzzy on--on precisely what the communication links were. But that you should be able to find that out all right without too much trouble. In the portions of the GC & C^S History were in...

SCHORRECK:

Yeah we--I read--one of the first things I did was to read the British account of this period, what they did. Gee they were so far away.

CURRIER:

Yeah, I know.

SCHORRECK:

They themselves suggested that there wasn't much that they contributed, could contribute.

CURRIER:

That's right, yeah.

SCHORRECK:

At least in comparison to what the Australians were doing.

CURRIER:

Exactly, no they didn't do much. They concentrated almost entirely, really all their real action on the Atlantic front.

SCHORRECK:

Right. Do you recall anything at all about the organization or functioning of the Corregidor or Melbourne unit? Was it roughly the same as what you described for OP-20-G?

CURRIER: Ah no. I wouldn't have thought so, but I don't know. I know Corregidor wasn't at all the same. It was a tight little intercept station with a few language officers there who undertook to do what they could in decrypting and translating a few of the more important messages. I don't know how big the unit was as a matter of fact the, I know that Tom Mackie and Rufe Taylor were the two language officers who went down there from Tokyo. Ah was Clay Richardson--yeah, I think he went there too, Clay Richardson. And they were all evacuated to Australia, but I can't remember how many others were there. I don't, I don't know the size of the processing unit.

SCHORRECK: We have the names...

CURRIER: You do? I know Blanchard was one, he was a Chief.

SCHORRECK: Kay, Harry Kay I think was one.

CURRIER: Jack Kay.

SCHORRECK: Oh Jack Kay. We have the names of the people that...

CURRIER: Well Jack Kay is around.

SCHORRECK: Yeah.

CURRIER: Have you talked to him?

SCHORRECK: Yeah.

CURRIER: He should remember. But I was never there during the war. So I don't, I don't know. I couldn't give you any information. I do not recall at all. And as far as the organization of FRUMEL was concerned I wasn't personally

concerned with that either so any information you get on that best come from someone who was there. And there are quite a few people around who were.

SCHORRECK: We really want to talk to (_____ ? _____). He was in Washington.

CURRIER: Yeah that's right.

SCHORRECK: And I want to try and get him. He helped us immeasurably in that area.

CURRIER: Yeah, he could, he could.

SCHORRECK: Did you know why the Navy went on a 24-hour basis before the Army, in Washington, in OP-20-G?

CURRIER: I don't know why except that that's just the way the Navy did things. That sounds like a rather facetious answer, but I think we were inclined to do that anyway. Watch standing was part of the tradition. It's just something you do whenever things look like they might get a little bit hairy. I can't think of any other reason than that.

SCHORRECK: I was just...

CURRIER: Had someone given a reason?

SCHORRECK: Well Mr. Raven told us a rather amusing anecdote about there was a message that had come in on the Red Machine about a Japanese Ambassador in Rome back to the Japanese Ambassador in Berlin.

CURRIER: Purple.

SCHORRECK: Ah Purple, I'm sorry. And it came in on the midnight and Mr. Raven as he tells it said that he was just about to get into bed when a knock came on the door and he opened the door and peered out into the darkness and there was Long John Leitweiler (?) standing there and he said come down right away. So he ran down and got the message there. The only problem was all of Mr. Raven's things were in the time-safe and he couldn't get in until 6 o'clock the next morning. And it so happened that Chief of Naval Operations had walked in and he had told Commander Safford he said, "I will wait in my office until I have the translation." And he waited all night until 9 o'clock the next morning. Mr. Raven said that from that point on they went on a 24-hour basis. I don't know whether that was...

CURRIER: Well it's probably almost true but I somehow doubt that that was the only reason that we installed (?) 24-hour watch.

SCHORRECK: I had read somewhere that it was a decision arrived at with a...

CURRIER: But again, I don't honestly, I don't know the answer if there is one.

SCHORRECK: It turned out that the message he decrypted was that they were putting on a big show for the Japanese Ambassador in Berlin. So they had radioed down and asked for more liquor. But anyway.

CURRIER: Well those are the sort of things that stick in my mind.

SCHORRECK: Could you confirm or otherwise--many people have said to us that there were a lot of officers in the early period who really didn't want to get into COMINT because of the questionable, the legality surrounding it.

CURRIER: No, this wouldn't be the reason. There were lots of officers who did not want communication. It had nothing to do with the legality of it at all. It had to do with promotion.

SCHORRECK: That was the other reason they gave.

CURRIER: That was the only reason. It had nothing whatsoever to do with the legality of COMINT, I guarantee.

SCHORRECK: Was there legislation passed as a result of Stimson's efforts early on, in '29, '30?

CURRIER: Ah, not legislation but there were, there were orders written at various levels certainly in the State Department, which had no bearing outside the State Department and which were ignored by the Army and Navy. I don't know the extent of it or precisely how many or to whom they were addressed, but it was one of those things that a person, a man like Stimson might well undertake to do. He was a... It was a silly mid-Victorian idea about honor.

SCHORRECK: Did you have clearances of any kind?

CURRIER: Yeah.

SCHORRECK: You actually had a...

CURRIER: You had a, that's right, you had to have a COMINT clearance. I don't know precisely what it was called except I think it was a COMINT clearance. Everyone in the COMINT business was at some point along the line especially readied somehow. I don't know precisely what the investigative procedures were but you had to have something other than-- in addition to the regular Top Secret clearance. The clearance procedures were the same as Top Secret. We got that as we do now, but in addition there was a certain personal check. I don't know how rigorously it was carried out nor over what the time period was. But there was something in addition, yes. And all those, there was an oath that had to be signed also. But I don't remember precisely the wording of it either. I don't personally remember signing it but I must of because everybody else had.

SCHORRECK: It's interesting to know that there was. This is the first we've heard about it.

CURRIER: I, I, I'm pretty certain. I'm pretty certain that there was but I can't tell you when, not originally, not in the early 1930s.

SCHORRECK: But by World War II say?

CURRIER: I, I'm pretty certain there was, yeah. That'll take a little checking but I think so and I can't remember just

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exactly when it began.

SCHORRECK: How did you stand your watches? Were they 12 on...

CURRIER: It varied. It varied with circumstances and the number of people there. And it depended, for instance, the Purple Watch was quite something of itself. That was a separate, quite a separate group and had nothing else whatsoever to do with the rest of GZ. They were completely separate.

SCHORRECK: From all the rest of OP-20-G?

CURRIER: That's right, all of OP-20-G. Completely separate but ran in conjunction with the Army. And as you probably know, the Army took one day and the Navy took the other in sending messages, breaking codes so that they didn't in fact overlap and they got the most out of the few people that they had. But the watches after the war started, the watches in GZ didn't settle down for two or three months anyway. But we did inaugurate 24-hour watches of a sort right after the war. But they never worked very well and nobody really knew who was suppose to be on watch. And it wan't until another six weeks or maybe even more that we really got things straightened out. I guess perhaps it wasn't until after Rosie Mason came that a real watch schedule was set up and that was, as I mentioned earlier, didn't include everybody simply because he said there's absolutely no point of putting

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some of these people, some of these people really don't know which end is up, nice guys, but they haven't had any experience and they are simply not equipped. So as it turned out, we, he and I did pretty much most of it for two or three months until we got a couple of extra people to this end. In order that we get some sleep, we kept a cot in the office. So that since there were only two of us, whoever had the watch at night needn't stay up all night because he had to work the next day also. So we simply slept so that if anything happened during the night, you were available immediately and if you were needed. That way you could do more with two people than the other way.

SCHORRECK: Judging from what people have said and from what you've said, it must have been a fantastic grind.

CURRIER: Yeah, but you sort of get use to it and it was, there was a certain excitement about it. You can imagine. That didn't allow it to become a grind. When you got things settled up--set out--settled, and all the watches arranged Nebraska Avenue in February '43 a year after that. We immediately set up a four section watch on the senior watch desk plus we got additional translators, we had about eight or ten at that time who worked two on every night, one in one section and one in the other plus the senior watch officer. That was just by the way, in the

JN 25 Section. There was a complete 24-hour duty section in the communications center added to their own traffic--sorting, additive--traffic preparation types, and down in GI and GT. These were all full 24-hour man watches. We kept them on around the clock. We kept them on around the clock.

SCHORRECK: You were there in the ⁹ days before they had those extra people.

CURRIER: Yeah, but when we got to Nebraska Avenue there were enough people to set up that kind of watch in these other sections. We never had more than four senior watch officers at any time. And what we use to do is we had, we stood three, three evenings and three days always. And when we stood the evening watch we turned in at midnight and got up and of course went on all the next day. We got seven or eight hours sleep--seven hours sleep if things weren't really too hot at midnight. When mid-watch came on and there was nothing much going, there was nothing much going, there was no need for the men on the evening watch to stay on and help. And most frequently, which he did right there, we had a little bedroom.

SCHORRECK: What did the families do?

CURRIER: I know what mine did. Nobody seemed to suffer very much I'd call.

SCHORRECK: You just accepted it?

CURRIER:

Oh yes. When I had the mid-watch, from midnight until 8 o'clock in the morning, that was on for three days. So I simply went home in the morning and slept till say 2 or ³ o'clock in the afternoon. Then I got up and ate my breakfast. And sometimes I frequently went in before my time but that was my day for those three days and when you had evening watch you worked the evening watch plus the regular next day. You slept from say midnight until seven in the morning but you slept right there so that you stayed there a full 24 hours and sometimes 36 hours before you actually went home and did get some sleep. And there gradually came to be enough people so that we could not only set up the regular four sections--Senior Watch Officer Duty List, but there were enough translators and bookbreakers and so on so that there would be two to three on the regular watch at night. That section kept pace with the production of traffic from the Com Center and from the traffic preparation. And they did even more than this in the Atlantic Section. When they really got going with the submarine traffic, they stood a full 24-hour, 3-section watch around the clock. Of course, they did, they did this in Pearl; they did it in FRUMEL so that everything was well covered.

SCHORRECK:

Yeah, I, I read Captain Rochefort's ^{ces} reminiscent of
Pearl and he said those guys killed themselves.
(?)

CURRIER: I guess this is true. There was a lot to be done and everybody did it; but I don't ever recall anybody having anything adverse to say about the way things were being run or the work that was being required to them. Everybody knew this was a very serious war indeed.

SCHORRECK: Oh yeah.

CURRIER: I don't think anybody even thought about it.

SCHORRECK: But the quality of the work and the quantity as well. They would have been under tremendous pressure.

CURRIER: Well the best work was done under pressure. It was true in England and they worked exactly the same way. No thought was ever given in sparing yourself...quite apart from anything.

SCHORRECK: There's one big area which we haven't covered. The same area we haven't covered with Mr. Raven and the reason is we want to get some technical people involved when we do it. And that's the JN25 itself.

CURRIER: Yeah.

SCHORRECK: In addition to GYP...

CURRIER: Yeah. Well I can remember, I think enough perhaps to be of some help. I don't know.

SCHORRECK: This was what I was going to ask you if you could break it down into relatively simple terms.

CURRIER: Yeah, as long as you don't want precise dates when one book went in and the other one went out.

SCHORRECK: No, no, I'm curious to know how the Japanese enciphered it.

CURRIER: Just straight forward additives, reuseable additives. The additive books were produced by the thousands and they were shipped all over the Pacific and the unit afloat. There were three different categories of additive books. One was regular administrative. One was so called Intelligence Additive System and the other was a high level system, the name of which I have forgotten, but it was the highest level.

SCHORRECK: When you speak of an additive Captain, what are you really saying?

CURRIER: A line of figures added to the 5-digit text.

SCHORRECK: And these were mathematically...

CURRIER: Arithmetical--addition, non-carrying addition.

SCHORRECK: Right. So that you'd have to subtract to get back to the original encipherment. Now how would...

CURRIER: They weren't all--they were subtractions--additives cover everything, both subtractives and additives because you can add minus quantities. You just use the word additive. They were originally supplied as subtractives, subtracted from the text and the result was what was actually transmitted. But we called them all additives.

SCHORRECK: Now what would be the process when you've gotten your additives--figured out what they were?

CURRIER: The additives were not one-time additives. They were reuseable additives and they were set. Every message contained an indicator and an enciphered starting point in the (_____ ? _____) page additive book.

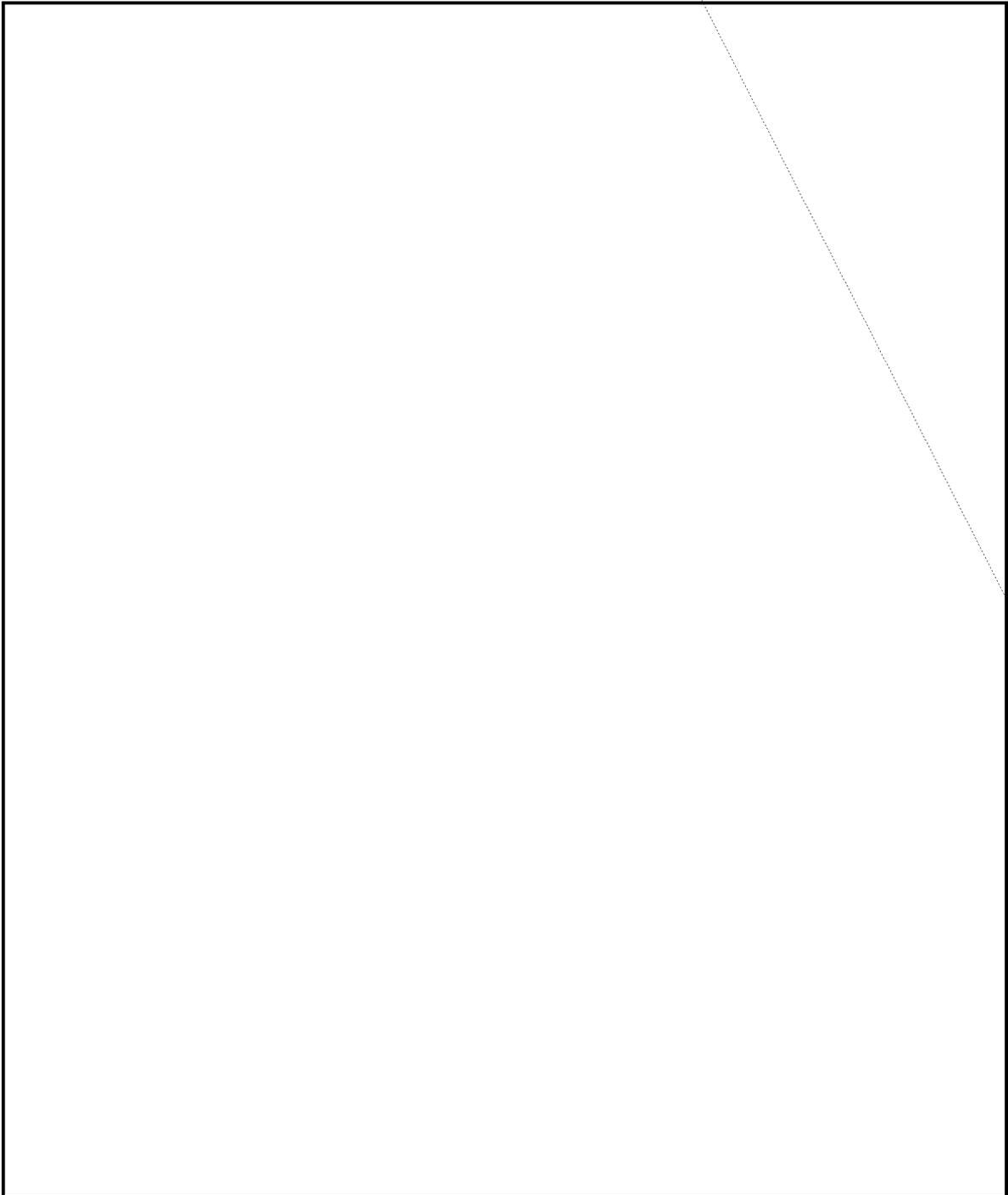
SCHORRECK: The indicator told you where to start?

CURRIER: The indicator told you where to start, precisely. Now, the idea of course, was to line up--first to recover the indicator encipherment in order to ~~pre~~^{re}produce the indicator to a clear 5-digit number which will then tell you the starting point and I think the ending point. I'm not-- I know I've forgotten on that, but this is written up in JN25, every bit of it. In matter of fact, it's all included on...

SCHORRECK: GYP?

CURRIER: Probably, yeah. I've forgotten what it's called but it's certainly in there. But the a--it's a simple process and the Japanese used it all during the war and they never would admit that it wasn't too complex to be read and they were never convinced even after the war that we were able to read the traffic with such... But the process by which the bulk of the messages were set was one divided^s by GYP. And it was mostly hand work, sorting and sliding and that sort of thing. But with a couple of hundred people on each watch this could be done. But again, this

is all written up. The details of that, if you need it,
it's all right there. I'm absolutely sure. Once the



Now there were certain--one of the principle elements

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that assisted in recovering additives was the garble check in the codegroups. There were various kinds, and this was all known as soon as any code was recovered sufficiently either be able to determine. This was something which was also, you could add this factor into your different stages and it gave you a little bit more information as to how to place a message and what the actual codegroups were. It wasn't a complex process. It was just a very long process and it involved millions of codegroups and literally thousands of messages all set at different points throughout these various books that were being used. Every originator or any given circuit, of course, had to use the same set of books. They all had to proceed through the same way. And they had to send in received books and they all had it. So that you ended up with buckets full of recovered additives--which were used to read subsequent messages which were placed in the book which had been recovered. And right through the period which lasted from anywhere from six months to a little bit more sometimes. When the JN25 basic codebooks were good, the additive books that were issued for use with it were also held good. Now one of the big mistakes, of course, that they and other countries had made is that they change either the additive or the codebook but not both simultaneously so that obviously if you have one you

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can recover the other. And for a short period of time, when for instance the codebook stayed in but the additive changed or vice versa, then you had a leg up in getting into the next period--next cryptic period. And, of course, they also always sent out messages in JN25, everybody, saying what systems were we going to effect, when and what additive books were to be included. This gave us all the titles and the names of the codebooks that were involved and then there were monthly inventory lists of all crypt materials which was sent in JN25. So that in the main, once you got started it was always snowballed. And with the numbers of people who were available and the very detailed records that we kept of everything, as long as, as long as you didn't allow yourself to be swamped by this great mass of information, it was not all that difficult to process--continue to read.

SCHORRECK: When they say, JN25B8, which was the...

CURRIER: JN25B was the number ^{two}~~three~~ book in the JN25 series and 8 was, as I recall, the 8th cipher.

SCHORRECK: That's the way I heard it.

CURRIER: That is the way, that's the way it used to be and I think that that's the way it continued to be throughout the war, yeah. They did have, they had an intelligence codebook which wasn't used very much, as I recall. Of course, there were many other minor, minor systems but

I'm talking about the major 5-digits. I don't recall very much about it except I know that it existed. And it certainly existed before the war and up to the first year or two into the war. And I've forgotten what exactly happened after that.

SCHORRECK: Commander Stafford in one of his histories said that, and I'm pretty sure that this was before Pearl Harbor, he said in that period the Japanese had six major systems-- flag officer's attache, intelligence, merchant shipping, operational, and...

CURRIER: Yeah that sounds about right.

SCHORRECK: The material and he said that the only one that OP-20-G never read was the flag officer's attache.

CURRIER: That's right.

SCHORRECK: And then the Japanese didn't use it. They stopped using it.

CURRIER: Yeah. That, that sounds right. I've forgotten which ones they were. That's right though, yeah. And a lot of the others weren't read all that well either. Those were all, early in the '30s they were four Kana books, they were not numeral books. And the cipher employed was a transposition--complex transposition--not all that complex nowadays. Triangular shaped transposition with a lot of (_____ ? _____).

SCHORRECK: I was going to ask you what percentage of things were actually read, every message and of every system?

CURRIER: I can't tell about every system, but of JN25 we figured once that we probably read about, about 5 to 7% of all the traffic that was sent. But that was all that we needed to. There was information in the other but it wouldn't have been worth going after with the numbers of people that we had. We read some of it when we had time. We'd go back and read some of the long organizational messages and that sort of thing. But we read all of the traffic, all of the operational significant traffic and it was not difficult to spot this as it came over when it was current. And this, in the course of a changeover period when you missed certain of the operational significant traffic, then time permitting when you recovered most of the additives and a good percentage of the codegroups, then you went back through the prints searching for messages which--two kinds one that would of been important at the time, and simply translating for history not for operational use, and to organizational messages such as those that gave names of the ships that were sunk and when and this kind of thing, you might have a change to do in the course of it.

SCHORRECK: What were the things you looked for in a message when it was coming in to tell you whether or not it was an

operational or a good one to break?

CURRIER: Well, you could almost always--any operation order almost always started with the words, "operation order".

SCHORRECK: But this is after you had gotten it down to plain text though?

CURRIER: Yeah, I know.

SCHORRECK: You wouldn't know that--would you know it by looking at it?

CURRIER: Well, no we...

SCHORRECK: That any work had been done on it?

CURRIER: No, you probably would not although you might be able to tell from the addresses. For instance, their task force organization was done more or less the way ours is and task force commanders had various other administratives commanding, and you could tell frequently messages which the addresses were such that they looked as if they should be operational as you spend, look especially close at them and to get those out first to see whether or not they were. But usually what happened was, you were-- everything was going so fast and the messages were being decrypted at such a rate that you were kept flooded with a stock of half decrypted messages, some completely decrypted which came in every twenty minutes or so and came on to the desk that you could get almost everything by going through those. And if you saw one that had one

word in it that looked as if it might lead to something interesting on either side of it and there was blanks on both sides then that you'd mark with a green cross and send it back and tell them to get to work on this right away.

SCHORRECK: I see, the determination was made in GZ.

CURRIER: Oh yeah.

SCHORRECK: The ^{ea} encryption people had to break them all anyway.

CURRIER: Yeah they broke everything anyway. Everything that they could they broke.

SCHORRECK: Then it was up to you to pick out which one you wanted to spend time on?

CURRIER: Oh yes, complete control was in GZ. They were the only ones that could tell whether the messages were worth reading. Not only was complete control of what was decrypted was there and what was worked on, in addition to those that were routinely worked on, but what information went out, in what form and how phrased.

TAPE 2, SIDE 2

CURRIER: There must be--there must be some of those around somewhere.

SCHORRECK: I haven't seen those, not 5 x 8 cards. These are 8 x 10.

CURRIER: These are--all of the GZ summaries were all on 8 x 5 cards. And each message was on a card and if it took two

then we continued on.

SCHORRECK: There must be some...

CURRIER: Now some of those may have been microfilmed but I doubt it. I wouldn't have thought they'd pull those apart. See they contained most of the important material. Sometimes it frequently happened, but in periods when there wasn't a lot of operational material that needed doing right away, that the people in GZ would go back and look for messages that had previously been translated in which there were holes. They would then retranslate, fill in the holes, and to make a more complete story, principally for reference purposes. But sometimes it contained information of interest even though at that time it turned out to be say as much as a month old. It was still of interest. For instance, messages ordering landing forces on the North Coast of Guadalcanal. You might get the names of the ships carrying them but you would have missed the number of Navy land force Marines that went ashore and precisely where. A month later you might be able to go back and redo that message with additional additives and code recoveries and retranslate it and get that information which was still of value, even though the men were already ashore, that sort of thing. You frequently would get messages detailing (sic) damage to Japanese ships, but you couldn't get specifics.

If the occasion warranted and it was an important ship, then in order to determine how long roughly she'd have to stay in the yard to get ready for sea again. If you'd go back and do a message, a damage report, over again and find out more or less what her problem was, what happened.

SCHORRECK: Did you ever get involved with the actual decryption part of it yourself?

CURRIER: That was all part of GZ. You mean the code recovery and the...Yeah, that was all part of GZ. Code recovery, translation, determine of what is to be translated, determination of what was to be sent out and how--this was all GZ. The decryption, that is removing additives from that portion of the decryption, was GY. The breaking of the codebooks and the translating and the dissemination of information was all GZ.

SCHORRECK: So all GY did was mainly additives?

CURRIER: All GY did--that's all they did. I say all. If it hadn't of been for them there wouldn't have been anything else.

SCHORRECK: Right. And in that process they would have wanted to primarily utilize machines?

CURRIER: Yeah, they did.

SCHORRECK: When they developed later?

CURRIER: But most of it was hand work. The messages were hand written on big sheets overlapped, according to the way the message was set, the additive recovered as the

messages were written out, then the high frequency values which they recognized became...about I guess. In fact I've run across some now that can remember high frequency values of some of those older codes that they slept with for so long.

SCHORRECK: To say GZ was translations was somewhat of a misnomer?

CURRIER: GZ did everything north of additive recovery. They did all of the code recovery. They did all of the translation. They did all the dissemination, directly. In other words, they wrote what was to go out and sent it down to GI who then sent it out. They went back to GY and told them what messages needed working on in what order. And on occasion, went over and sat down beside--I've done this many times anywhere from 2 o'clock in the morning to any other time--sat down beside the men in the ^{blessed?} bliss (?) additive room who were working on the most important traffic, to help them recover additives and rush back and translate it and send it out so that the information went out ten minutes earlier than it would otherwise. You see you just rely on them. So it was sort of a closed shop really. Closed in the sense that everything after the additive recovery was done by one group of people. It all depended on how that work was directed and how rapidly it was done. How quickly the information got out to the operations... And they did very much the same thing that

FRUPAC did, just about the same kind of operation.

SCHORRECK: Of course, Rochefort himself was a linguist.

CURRIER: Yeah. He was a linguist, but I don't ever recall...I was going to say I don't recall ever knowing that Rochefort did this sort of thing himself. He may have initially but I just don't think he did. People who did, I mean Fulenwider was there and Tom Mackie--no he stayed in Australia, Rufe Taylor was there, Bill Richardson I think he came back to Pearl but I'm not absolutely certain I think he did.

SCHORRECK: Tommy Dyer.

CURRIER: Dyer, but he wasn't a linguist.

SCHORRECK: No.

CURRIER: He was cryptanalyst of sorts.

SCHORRECK: Right, yeah right. How about--how about Lasswell?

CURRIER: Red Lasswell was a linguist, a Marine.

SCHORRECK: One thing I never, I haven't pinned down yet is what, exactly what Jasper Holmes did.

CURRIER: Jasper Holmes was intelligence. He was, he was...

SCHORRECK: I know he was intelligence.

CURRIER: Yeah he was, he was on the--I'll remember it in a minute--Pacific, it wasn't called the Pacific Intelligence Center.

SCHORRECK: No, the Joint Intelligence Center.

CURRIER: Joint Intelligence Center, that's right.

SCHORRECK: JICPOA.

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CURRIER: JICPOA.

SCHORRECK: And ICPOA before that.

CURRIER: JICPOA was that's right.

SCHORRECK: Somebody had a diagram, a hand diagram of the actual seating arrangement of the basement of the 14th Naval Administration Building. And they had Rochefort's desk and Wright and Dyer and all those people and they had Jasper Holmes' desk over here right near Rochefort's.

CURRIER: Yeah, he was JICPOA but you see he was JICPOA's liaison really.

SCHORRECK: Well JICPOA hadn't even been formed by this time.

CURRIER: When was this? How early was this?

SCHORRECK: This was early, 19--early '42.

CURRIER: Well he was still, he was still attached to CINCPAC.

SCHORRECK: Was he working for Layton?

CURRIER: Ah that's my recollection, yeah. But he was working for Layton in the COMINT spaces.

SCHORRECK: In, right in the spaces themselves where as Layton was not?

CURRIER: No, no.

SCHORRECK: I heard somebody say one time that Holmes was making a-- kept maps. And they put DF charts on his maps. Nobody has ever substantiated that. I just remember what he did.

CURRIER: Well he was, of course, he was an author.

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SCHORRECK: Yeah, I got his book, his thing over there. It's a real long title.

CURRIER: I mean he wrote for the Saturday Evening Post.

SCHORRECK: Yeah and he also wrote the Under Sea Victory.

CURRIER: Yeah.

SCHORRECK: I've got a narrative that he wrote "The Combat Intelligence Center." You've read that?

CURRIER: No I haven't.

SCHORRECK: I've got a copy of it and it's rather interesting.

CURRIER: Um hum. But things that didn't happen in Washington about which I knew only second hand. Anything I say is bound to be not absolutely accurate. In fact, it may be far from the truth. Whenever I don't know I'll try to say I simply don't know. But I may still say something but you'll have to remember that I said I didn't know.

SCHORRECK: Oh yes. We just have to compare, and compare, and compare--more and more views on the thing.

CURRIER: Yeah.

SCHORRECK: I don't have anything else off hand Captain. Did you have a...

CURRIER: Well what I think would be useful at some point when you get enough of this together so that it can be looked at by an outsider--that if we can arrange it, I will be very happy indeed to come down and sit down with you and go through things and if in the course of doing it other things occur to me which they may well do...

SCHORRECK: I'm sure they will.

CURRIER: Well corrections of things that I may have said or someone else said which I now know to be slightly wrong and I could possibly correct them. And other additions I think perhaps might be possible with this kind of mind jogging procedure.

SCHORRECK: What's very frightening about it all is that if you write-- this looks like it's going to be a forty-some page Chapter 1, talking about the organization and the way the messages and intercepts were processed and your writing in a period where people who did it are going to read it and they're going to say, wait a minute--that's not how it was.

CURRIER: This is the only way you're going to get them to say that.

SCHORRECK: I wanted--yeah, but I want to try to do as much of that before I actually put it down.

CURRIER: Yeah, I don't blame you.

SCHORRECK: As I can.

CURRIER: Now I wrote, for instance, a resume of GZ activities right at the end of the war about I don't know maybe twenty pages. It was typed up, but you see, I left almost immediately and went to (^{Booth? Boats?}) so I was never able to follow any of this up. When I got back everything was gone. I came back the following June, and there wasn't anything left. Everything was either at Crain or

or burned or something and I never knew what happened to it and I've never seen it since.

SCHORRECK: I haven't seen it. I haven't run across it yet.

CURRIER: And this--what this was was a say about I don't know, 15 to 20 page typewritten pages, double spaced, a resume of general procedures throughout the three year period we were at Nebraska Avenue. How traffic was handled, who did what to it, and how we did it. Something like I'm telling you now, only in detail and written at a time when it was all very fresh in my mind. I knew precisely what I was writing.

SCHORRECK: Yeah, we have some things which are anonymous.

CURRIER: I don't remember signing it by the way.

SCHORRECK: That's what I mean. We may have it.

CURRIER: I'd recognize it if I saw it. I've run across the, or three things that I recognized that I wrote or have written subsequently which I just wrote as inner-office memos that sort of thing which never were published which were sort of lying around. They were useful. The reason that I did them I've forgotten why. Raven did too. He wrote an awful lot. I think he found some of it. He had a lot of time to do it after the war. Where as I only did not have any time but I don't know whether I'd have been allowed to spend the time on it if I had it. The original copy of the so called GZ hand book is a useful

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document to have. It was something that we started I think after we came out to Nebraska Avenue. Rosie Mason really started it. It was a complete organization list of the entire Japanese Navy and all it was written primarily to instruct young translators who came into GZ, precisely what they were in for and what the background was. It gave all the Japanese expressions, all the various organizations, lists of everything. Then in the back there was an alphabetical list of ships and a list of ships by type and after each one it gave the date and place it was sunk. And we'd sort of keep that as a checkoff list. But you haven't seen the original. There's one around somewhere which really isn't up to date. I saw it too. In fact, I think I got it and had to put it together and I think it's back in the B1 library.

SCHORRECK:

Anything they don't have, I have. I have, I think 15 or 20 (books ?) that I found at Holabird. - which no one knew we had.

CURRIER:

Did you, I understand there was one 2 or 3, 3 or 4 years ago and I found some and got them sent over but I couldn't find all the ones I was looking for.

(End of recording)

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