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Substitute Benson for Schorreck in this interview

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Format

TILTMAN, JOHN

Interview with ~~Admiral~~ Brigadier Tiltman

17 December 1978

Benson: What I'd like to do is cover the periods '41 thru '44. But in order to set the stage, I wonder if I might ask a couple of organizational questions on the organization of the British Services? Taking for instance, as a starting point, in 1939, the outbreak of the war. The Chief of the Secret Service was also the Director of GC&CS. Did you people consider yourselves Secret Service personalities as such?

Tiltman: No.

Benson: You were under a separate structure for pay, etc.?

Tiltman: It's difficult, it's one of these mixed things. There was a great deal of service personnel coming in all the time who were paid by their own services.

Benson: But GC&CS was never considered part of the Secret Service, as such, even though you had a common chief?

Tiltman: No.

Benson: Did you have any, just as a matter of interest, any contact with the Pre-war Chief of Secret Service, Admiral Sinclair?

Tiltman: I had a lot to do with him, yes. Back in 1931, I was working on the COMINTERN ciphers in which he was very interested. I had a lot of dealings with his man, Col. Vivian, whom you may have seen mentioned in the correspondence. On three occasions between '31 and '34, I went to Berlin looking for books, key source books, which they were using and then I went - I was paid for by the chief you see - and I went on his orders. So I had quite a lot to do with Admiral Sinclair.

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Benson: Now if I could get into some of the contacts with the Americans at the beginning of the war. In, I believe August/ September 1940, General Strong came to Britain as a part of a U.S. Mission apparently.

Tiltman: He came over in 1940, did he?

Benson: Yes, Sir.

Tiltman: I don't think I met him then. I had a lot to do with him later.

~~Schorreck~~ Benson: It's our understanding that it was in 1940, this of course is a year before ~~the~~ Sinkov's, in Bletchley Park, but in his visit in September 1940, he offered to enter into an agreement with the British, offered the Purple Machine. Do you know anything about the Rosen negotiations?

Tiltman: I can't remember. I didn't come into contact with any American until Sinkov and Currier came over. I am aware that we made contact in the Far East. Jeff Dennis came from Corregidor to Singapore and Commander Burnett went to Corregidor. Burnett was working with me for a short time, I suppose in '39 before he went to the Far East. I had broken into the indicating system of JN-25 because of its analogy with the military and air Japanese ciphers which I had broken into when we were ~~in~~ first at Bletchley in 1938. I've always assumed, and I think I'm probably right, that the American Navy had independently broken the JN-25 indicating system. But Burnett always swore that he got it from me and he handed it over to you. My guess is that this is not the case. I don't know whether that is cleared up in papers or anything.

Goodman: Was this in the period that you were in Hong Kong?

Tiltman: No, I went to Hong Kong in 1937 to try to handover there was a Naval Officer, Commander Keith, who was prepared, at that

time to retire and take on the military Japanese in Hong Kong. I went over to handover to him and it was quite clear that he had no confidence that he could do the job at all. So I brought it back again and I flew out in January '39 and by this time, I have to be careful here I wasn't prepared for this, we had the Japanese military and air and they had taken on long additives that they used, 10,000 group additives. I briefed two of my officers, Marr-Johnson and Stevens, who followed me out by sea. I did some work in Hong Kong to bring what we knew of the Japanese military up-to-date and hand it over to them. From that time onwards, the Japanese problem, apart from the military attache, was a Hong Kong job in parallel with the naval job there. This was not so later. We had a big Japanese party working on it all through the war. I don't quite remember at what point they started this.

Goodman: Burnett went to England then, was it Commander Malcolm Burnett?

Tiltman: Burnett went to England sometime in 1939.

Benson ~~Schorreck~~: If we could turn to Sinkov's mission, I wonder if you could set the stage on this, that is, how you prepared for their arrival, and what briefing you might have been given in advance, What to expect, what to do?

Tiltman: This again, is one of my uncertainties. I am perfectly certain that I saw a copy of a telegram that it had been agreed on at Chief of Staff level that there should be complete exchange. Well, now, this was a very difficult thing for us to swallow because I, for instance, I don't know whether the Director had been briefed in

any way. I was unaware, now wait a minute I have to put . . . But anyway the point I wanted to come to was that we were at war and you were not at war, and in spite of any agreement that had been made higher up, we were instructed in the first instance, Sinkov and Currier were not to be introduced to our work on the Enigma which was a very large part of the office.

Goodman: So you were not even aware that an exchange was contemplated - it was a complete surprise to you?

Tiltman: It was a complete surprise to me. Whether it was a surprise to everybody else, I don't know. The dating is a little bit difficult, here. I became . . .

Benson ~~Schorreck:~~ It was April 1941 that they arrived. They stayed until June, so they were there for two and a half months, or something like that.

~~Benson~~ ~~Tiltman:~~ TILTMAN Yes, and I was put more or less in charge of them.

Benson ~~Schorreck:~~ Did you then have any advance knowledge that they were actually going to be bringing the Purple Machine?

Tiltman: That, I don't remember. I don't think so. I don't think I was aware. It was one of the first things, and it was a wonderful gesture of the American Party that they handed over the Purple Machine. Rosen was with us. He had built the analog of the Purple Machine. We had not caught up on it. Our man who was working on it, Foss, was ill at the time. In any case, I doubt if we would have been able to get hold of the long English crib on which they broke into the Purple Machine.

Goodman: How did they give you the Purple Machine? Did they just come in and drop it on your desk?

Tiltman: Not on my desk.

Goodman: Can you describe the sort of excitement, reception that that was greeted with?

Tiltman: I don't remember.

Goodman: You know, it's such a dramatic moment.

Benson ~~Schorreck~~: From our side, it's always throught of as being especially important.

Tiltman: I always thought it was especially important as a gesture - the first gesture which puts everything on the right lines. We were in the war, you were not in the war, and we weren't that ready. We hadn't really been fully consulted about what the meaning of exchange meant and we weren't originally prepared to reciprocate by handing over our Enigma results. Also, we had certain kinds of agreements which I don't remember with the French as to what we should do with the Enigma work. Travis hadn't taken over, he didn't take over until '42, Commander Denniston, the original director, had gotten in the habit of treating me as a sort of research cryptanalyst to which he would refer difficult problems that were not working. I was not at that time. . . We had a fairly honorary title, Chief Cryptographer, and Chief Cryptographer at that time was Oliver Strachey , who was getting very old and not very good. Denniston had gotten into the habit of using me. I was trying to train the military officers who were attached to me to break ciphers because nobody had ever had any training in those days. So we were instructed that the Enigma was not to be handed over.

Benson ~~Schorreck~~: At what point was the subject raised, by the Americans or what?

T: It wasn't raised by them, it was raised by me. Here, I'm on slightly dangerous ground because I don't know to what extent we've told the story of what happened.

Benson: ~~Schorreck~~: Well, I can tell you some of the American side of it.

Tiltman: I'll tell you my side. I handed over everything I could. The Enigma wasn't my job. It had an entirely separate staff and so on. But I tried to get the Director to give way on this, but he wouldn't do it. By Director, I mean Denniston. So I got permission, and went up to see General Menzies, who by that time had succeeded Admiral Sinclair, who died of cancer in the beginning of 1940. I said to him, "Unless you give way over this and show the American Party, allow them to see all our work on the Enigma, I don't see how we are going to have any kind of successful collaboration. Apart from anything else, they can't help seeing that something like a quarter of the office to which they're barred". General Menzies agreed with me that this was something that had to be taken into account. He said, "All ~~Alright~~, but if you disclose it to them, they must sign a document which lists all the people to which they'll make the disclosure when they get back to Washington and any fresh spreading information must also be reported back to us, otherwise we won't do it.". They were junior officers, they didn't like having to make this sort of decision without being able to refer back. Eventually, after I'd left them alone for about an hour and a half, I went into see them and I said, "You know, this is something you can't go away without, or the whole thing will break down.". I think I've said this all before.

Benson ~~Schorreck~~: A little bit of it but go ahead.

Tiltman: I said, "Sometimes we have to make the decisions without authority. For instance, I've recently been in Finland and I promised the Finns certain things that I had no authority to provide them. And when I got back I got a rocket in the war office who said I had no right to do this. I simply said, "Well, that's what I did, and

that's the way it is.". Sinkov looked up at me and said, "I can see myself saying it to my General!" So, they signed this document and the way it was worded and that sort of thing was such that it caused a lot of trouble later. I reckon that I cleared the trouble when I was over here in 1942 when Admiral Redman gave me a hard time.

Goodman: Was this early on in the exchange that you made the Enigma available to the Party?

Tiltman: No, not at all. I should think, though, that they were there for a month before it came up at all. I should think it was a good month before they -- they were all scared of going across the line on this agreement. When they got back to Washington, they were very cautious. I had a bad time with Admiral Redman, who said that by this time the German submarines were operating on the American Coast and we were withholding information from them that was vital in spite of the agreement and so on. I sent a telegram home to the Chief and explained this situation and said that they would simply have to come clean, otherwise, any future cooperation could go wrong and they gave way. But there was always the reserve that kept on cropping up until right at the end of the war when Travis and I came over here to negotiate the peacetime agreement. Admiral Redman, by this time, was the Chairman of the Board. In the middle of our first meeting with him, he referred back to a time in 1942 when we were withholding information that was vital to the Americans and he looked down at me and he said, "And you, Tiltman, were here at the time". I looked around for help, but I didn't get any. So I sent a telegram home and I reckon that I was responsible for clearing that particular trouble. I haven't been thinking on these ~~grounds~~ lines at all. I hope I'm saying what you want.

Benson: ~~Schorreck:~~ Fine, Sir, very helpful. Full disclosure essentially was made to Sinkov and party then? The oath was signed and so forth?

Tiltman: Yes.

Benson ~~Schorreck~~: Were you involved with any further contact with the Americans until you came to the United States?

Tiltman: No. But Denniston came over here.

Benson ~~Schorreck~~: Yes, Sir.

Tiltman: In September 1941. He arranged for me to send Captain Stevens, who was one of the people I'd left in the Far East to deal with the Japanese, I had him sent to Washington so he was the first Internal Liaison Officer.

Benson ~~Schorreck~~: At the Army?

Tiltman: Yes. This was chiefly on I don't think he was involved in any contact, I shouldn't think so. It was purely ~~He could look clearly~~ on the Japanese.

Benson ~~Schorreck~~: When you came to the United States were you part of the Sandwith mission or did you have two separate. . .

Tiltman: Well, we were all together. Four of us - Captain Sandwith with the Navy, Kenworthy who was our head civilian intercept man, head technical man of our civilian intercept station at Chatham, an Air Force squadron leader, who's name I've forgotten, and myself. I brought with me everything I could possibly bring in the way of solutions.

Benson ~~Schorreck~~: Was this the beginning of 1941? I don't actually have a date.

Tiltman: I should think March '42. I was here for the best part of two months.

Goodman: Obviously, this time when you brought the materials, they were officially approved for exchange, was that right?

Tiltman: Yes.

Benson ~~Schorreck~~: A full exchange was still some ways away?

Tiltman: I did not come over prepared to talk about the Enigma. I didn't know my stuff. I didn't really know all the work that had been done or what the methods were and so on. I was confronted with Mrs. Driscoll.

Goodman: You were going to tell us about Mrs. Driscoll.

Tiltman: Mrs. Driscoll was quite an old lady with a great reputation going back to early Friedman days as a cryptanalyst. She seemed to me rather like a conventional witch (laughs). I wasn't warned of what kind of confrontation there was to be. I was to see Mrs. Driscoll. I was not aware that there would be a formal amphitheater with everybody that could possibly be interested sitting around - Sinkov, Kullback, Rowlett, Mr. Friedman, and the heads of both services were there and so on; and I didn't know my stuff. I've told this story before. Mrs. Driscoll had decided that she had a better method of breaking the Enigma than we had, but there was one bit of information which we had which we had not disclosed, so that in all her methods she always allowed one piece of information, what I call a bisque. I was not in the position to argue with her because I really didn't know my stuff. I always thought this was a very unfair way of dealing with me. I don't quite know who thought it up.

Goodman: Probably Admiral Redman.

Tiltman: Probably.

Benson ~~Schorreck~~: Did Sandwith have any particular knowledge. . .

Tiltman: No. He was a Naval Communications Officer.

Goodman: None of the rest of the party had any information about this Enigma?

Tiltman: None that I didn't have. I think I should say at this point that when the party of four came over in the beginning of '41, the Army had very little to tell us, but the Navy had the most beautiful, printed great big bound printer copy including every solution they ever had of the Japanese Navy and so on, which was quite a bit in advance of what our people had. This was handed over straightway. But the United States Army, for instance, had not been intercepting Japanese military and they got their information from me. We were a little way on with both ends of the military attache. When I was over here in '42, I worked mostly on military attache during that period when I had the time. I eventually achieved the first actual break-in after I got home.

Benson ~~Schorreck~~: On this mission when you came over with Commander Sandwith, you didn't stay? You came back again later -couple of months- then you reported back to Bletchley?

Tiltman: Yes, I was there then, then I came over again on COMSEC arrangements later in '42 with a different party altogether.

Benson ~~Schorreck~~: You stayed from that period?

Tiltman: No, I was caught then on my way back by the Turing incident. You know about that.

Benson ~~Schorreck~~: Perhaps we could back up before we get into the Turing matter. When you came over in March '42, was Captain Hastings here?

Tiltman: Captain Hastings was here. He had a dual job. Afterwards he belonged to the Government Code and Cipher School and he eventually became one of the four Deputy Directors. He was DD-3 and I was DD-4. Originally, he had a dual duty - he was supposed to represent the Admiralty on Naval matters, and he also represented us.

Benson ~~Schorreck~~: Also represented you?

Tiltman: Yes.

Benson ~~Schorreck~~: Was he involved in your discussions during March '42, any of your works at that time?

Tiltman: I hope I'm not wrong, but I think in the March '42 period, I got into trouble with Admiral Redman; no, sorry, it was over the Turing incident, which didn't come up until November/December '42, that he and I got involved with the Navy over the Germans.

Benson ~~Schorreck~~: Again, before the Turing incident, did you have any connection or did your SIGINT people have any connection with Mr. Stephenson, with the British Security Coordination in New York city? I'm very confused. I realize it was a conduit for traffic later on.

Tiltman: Later on - not at the time when I first met him. The first time I met him, when I was preparing to leave Washington to go home, by air, I had a message through Captain Hastings that William Stephenson would like to see me (he wasn't a civilian then by the way), He would like me to call on him in New York. So I met, Hastings didn't come with me, I went to the St. Regis Hotel, where Stephenson was living and I met him and he said that he wanted me to meet General Donovan and I said to him "Can you tell me what we're going to talk about because I've just taken a frightful beating from Redman", and the last thing he said to me was "As long as you deal with the United States Army and Navy, we're your friends, but we will not have you getting mixed up with any other organization." He said that General Donovan was in the room upstairs and he said "I'll take you up to him in a few minutes." So I said, "Well, if we're going to discuss these matters, whatever they are, I'm obliged to say that I can't talk at all.". So, Stephenson thought for a bit

and said, "I think I'll tell him you missed your connection." So I never met General Donovan and I had dinner in the Swedish Club with Hagelin, the only time I've ever met Hagelin, who although I was in uniform as a Colonel, a British Colonel, must have known that I was a good contact anyway with the British with whom he had no dealings at all. He never mentioned his machines or anything, we just had a nice dinner. I always respected Hagelin for that.

Goodman: Could I ask how you met him in the first place?

Tiltman: I met him then, at dinner, the Swedish Club and had dinner with him. That's all.

Goodman: First encounter? And it was fortuitous?

Tiltman: Yes, it was fortuitous. I had a message through Mr. Friedman that if I were free, Hagelin would like me to go and have dinner with him.

Goodman: Was Friedman there?

Tiltman: No.

Benson ~~Schorreck:~~ There's been a good deal of discussion, of course, in recent books about Mr. Stephenson's role. Is it correct that he was essentially a senior representative of General Menzies or did he consider himself to be an independent, personal charge of the Prime Minister?

Tiltman: No, well, the relationship between General Menzies and the Prime Minister was so close that I don't know that I know the answer to that. I didn't know much about him. In fact, I knew nothing about him until I got there, although six or seven years earlier I had done a good deal of work with the Secret Service. Under the office of General Menzies, I had a lot of contact with the French. I didn't know anything about the organization in New York at all. I very much disliked that book A Man Called Intrepid. Stephenson

eventually became rather a friend of mine and I was very surprised. I suppose he's the same age as I am, but whether the years had been harder on him than on me, I don't know.

Schorreck: The book seemed to be non-sensitive.

Tiltman: There's some very bad stuff at the beginning of that book. A lot of reference to General Gubbins, for instance. General Gibbins happened, in his youth, to be my best man and he was our interpretor when I was in India. I knew him very well. There's a lot of stuff in there about General Gubbins, he said, "I know, not only do I know it is untrue, but Stephenson must have known it was untrue, too". But Stephenson didn't pretend to control that book, but he said he'd been consulted and that it was all accurate. This has left me with a bad taste. Where the word "Intrepid" came from, I don't know. I never heard of it before. He was a very great man, Stephenson, there's no doubt about that, a wonderful, wonderful man.

Schorreck: I'm sure, yes. I'm just particularly interested in his organizational connection with you people and so forth.

Tiltman: He and the man who worked with him, a youngish professor from one of the universities, Captain Maidment and Professor Bailey, who was a Canadian engineer, drew me into the discussions about their acting as a link for exchange of traffic which was also a bit hard on me because I knew nothing whatever about it. But for that reason, I had quite a lot to do with Stephenson and Stephenson's organization, both then and after the war. He was one of the sort of sporting elite of the Navy. He used to play polo with Admiral Beatty. I was very fond of Eddie but he wasn't a great intellect. He afterwards became Deputy to Sir Edward Travis at the end of the war. I think he's dead now. And of course, technically he was not senior to me, he was junior to me.

Benson ~~Schorreck~~: Toward the end you must have ranked everybody, because of your prior service.

Tiltman: Who do you mean by everybody?

Benson ~~Schorreck~~: Most of the list of officers, as a matter of fact, because your service began in 19. . .

Tiltman: Yes, but I retired at the rank of Lieutenant and I only became a Lieutenant Colonel on September 19, 1939 when I had to go to France to make contact with the French. I then was presented a temporary Lieutenant Colonel in charge of a mythical body called #4 Intelligence School, which included my own people and quite a large TA party which worked in London under Colonel Stratton.

Goodman: You used the designator, TA, Traffic Analysis.

Tiltman: We never used the word, we talked WT.

Goodman: Okay. That's what I wondered, if there was some origin because we couldn't find it beyond - it seemed to have started in the latter part of World War II, the use of the word "traffic" the words "traffic analysis".

Tiltman: Well, at that time we were beginning to pick up American nomenclature which was forced on us. If we were to have any conversation, Mr. Friedman's writings, and prestige meant that his language and our language wasn't going to work at all..

Benson ~~Schorreck~~: I wonder if we could then discuss the Turing ~~Touring~~ matter and how you happened to be here, and your involvement?

Tiltman: I came over with a Naval friend, Commander Dudley Smith, and a young Air Force Wing Commander named Johnson, Kenneth Johnson, with the idea of coming to an agreement on the joint British/American ciphers when they were necessary. There were various interesting incidents, one of them is that when we came over on an American Troop Ship and the Naval communications man, with great pride introduced Sandwith and me to the ECM machine, which of course, we

were not entitled to see.

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Tiltman: On my visit, Friedman and Wenger - Friedman from the Army and Wenger from the Navy, had gotten permission to show me the ECM machine officially. Wenger had his permission on paper, and Friedman didn't. General Strong said that Friedman had shown me the ECM without authority which led to one of the early breakdowns that Friedman had. It put him absolutely right up. We were officially shown the ECM. I'm now in a muddle - It was when I first came over with Sandwith, that was when the Signal Officer on board showed us the ECM. That's the only time I traveled on an American Troop ship. Not until then.

Goodman: So, that wasn't with the COMSEC party, which came later?

Tiltman: No. The COMSEC party - we had a lot of trouble in coming to an agreement with the American services. There were all kinds of difficulties involved. One was that the United States services by that time had committed themselves to machinery and we hadn't been able to - we had the Typex machine which had a limited distribution, and nothing else. Everything else was hand systems and couldn't be changed on short notice. For instance, the American party tried very hard for us to take on the M-209 which is the Hagelin with fixed wheel of which they had great numbers in store for lower grade air-to-air and air-to-ground communications. We fought this as much as we could. We tried to get the Americans to take on rapidly changing small codes.

Goodman: So how did you get in the middle of the Turing incident?

Tiltman: Well, what happened there was that General Olmstead who was the Director of Signals, U. S. Army, invited us to send over an expert

to look at some piece of equipment and I don't know what it was, but I think it was some sort of voice equipment. For some reason, maybe because our Director thought Turing needed a rest or something, they chose to send him as an expert; he was a very strange man. While he was on the high seas, General Strong heard about that and said he couldn't see it. Hastings signaled back and I got a signal telling me that I wasn't to go home until General Strong changed his mind. He wasn't the sort of person who ever changed his mind. Hastings and I set about trying to change General Strong's mind. They were just opening, at that time, the Pentagon. It was quite difficult to find out where you were and General Omstead was on the ground floor at one corner and General Strong was in another corner and I can remember struggling across the mess inbetween more than once. We used to have long conversations with General Strong in which he would talk about everything under the sun except Turing. Eventually Brigadier Dykes, who was Staff Officer to our Field Marshall, Sir John Dill, he told me, "You know, your trouble is that you'll never get anything out of Strong if you take Hastings along with you because he doesn't like Hastings.". So I told Hastings, "I'm told that our failure is because General Strong doesn't like you". Hastings said, "Go ahead and see if you can do better by yourself.". I had a two-hour conversation alone with General Strong during which he talked again about everything under the sun and in the middle of it (he used to speak very slowly and deliberately), he said, "I know that you think that I (then he looked directly at me) have horns and cloven hooves", and I thought to myself, "My god, do I say yes Sir or no Sir" (laughs). So I got nowhere with him at all. Hastings said, "Well, I warned you that you wouldn't get anywhere with the old man". And then the next thing that happened

was (and by the way Turing had friends up on Long Island and he was enjoying himself up there), Dykes told me, this must have been sometime in January of '43, that if I didn't get agreement for Turing to see this equipment before the following Friday, I wouldn't get it at all because there would be nobody left in Washington who could sign such a document. This was when they were preparing to go over to the Casablanca Conference, about which I knew nothing. Eventually the Friday came and no agreement, and after everybody had gone, we had a letter from General McNarney (releasing Turing), then I went home.

Benson ~~Schorreck~~: That there would be an arrangement here - In other words, you could, Mr. Turing could see the secure voice equipment if some negotiations were open on Enigma. Was this introduced at all by General Strong as some sort of trade?

Tiltman: I don't think so.

Goodman: So you finally just got permission for Turing to go see this security device, with no exchange?

Tiltman: Not that I remember.

Benson ~~Schorreck~~: The agreement signed by Travis and Strong, I think was in May '43, that was not introduced at that point. Did you in these many visits with General Strong have any dealings with Colonel Parks?

Tiltman: A great deal, yes. He was always very, very helpful to me and as forthcoming as he possibly could be.

Goodman: With respect to Turing and the speech security device, did you get to see it? Were you interested in the visit at all?

Tiltman: No. I didn't even know what it was. I wouldn't have understood it if I had seen it.

Goodman: I doubt that, Sir.

Benson ~~Schorreck~~: Your mission then ended in January '43?

Tiltman: Yes, January or the beginning of February.

Benson ~~Schorreck~~: Then you went back?

Tiltman: Yes.

Benson ~~Schorreck~~: Did you have any involvement then in making arrangements for the Colonel McCormick, Mr. Friedman, and Colonel Taylor visits?

Tiltman: No, I met Colonel Taylor before he came over. That must have been, I suppose in the beginning of '43.

Goodman: How did you meet him? Was it a social call, officially, or what?

Tiltman: I don't remember. I met McCormick before I met Taylor.

Benson ~~Schorreck~~: McCormick was Colonel Clark's Deputy?

Tiltman: That's right.

Benson ~~Schorreck~~: Was he involved in the agreements or business discussions, that sort of thing?

Tiltman: No, I don't think so.

Benson ~~Schorreck~~: But they came over to Bletchley in April or May '43, but what I was asking, Sir, was, did you make any arrangements so they could get into Bletchley?

Tiltman: No. I think it was out of my hands by then.

Benson: However, on the other end then, did you see them again?

Tiltman: Oh yes. There was some long story (I've forgotten most of it) about a New Zealand Sentry. Has that ever come your way?

Goodman: No.

Tiltman: Whether it was McCormick or some member of G-2 was involved. I don't think this story is any use to you, but this kept on cropping up in every conversation. A New Zealand Sentry had either picked up something he shouldn't and revealed it. There was some security

trouble over a New Zealand Sentry in Cairo. I don't remember much about it but it had nothing to do with me.

Schorreck: Could you describe the visits then of Friedman, McCormick, and Taylor to Bletchley?

Tiltman: I don't remember, but of course, Taylor stayed. I got to know him very well afterwards. He did a tremendous job as a Liaison Officer.

Goodman: That visit of Friedman - that was not your first meeting, was it?

Tiltman: No, I'd met Friedman when I first arrived in '42.

Goodman: Did you have a chance with Friedman to exchange professional approaches or details?

Tiltman: As far as I remember, I met him originally at a large meeting with all the senior people, Wenger, Friedman, Rowlett, Kullback, Sinkov, and whoever else there was from the Navy, I don't remember. I had brought a tremendous amount of material over with me, everything I could possibly do.

Goodman: Did you, in effect, give tutorials with respect to material or seminars? Was Friedman there?

Tiltman: It was mostly in the form of reports. The only thing I can remember was Mr. Friedman looking over some of our reports and looking across at me, he said to me, "What is a finnery?'. So, I said, "Well, I never heard the expression but I can guess what it is. I think it's the Finnish habit of changing the setting of Hagelin machines in the middle of a message.". So when I got back to England, I took this up with my Deputy, the head of my Research Section, Jerry Morgan, and I told him the story and I said, "Why wasn't I briefed?'. He said, "Well, you know it's a funny thing - but there

isn't such a thing as a finnery." (laughs) I said "What do you mean?". He said, "It's all due to a mistake. It's a bust message. There's no such thing as a finnery.".

Goodman: So you were, in effect, in a position of giving bad information to the Americans? (laughs)

Tiltman: Yes.

Goodman: In the later visit when Friedman came over with Taylor and McCormick, did you have a closer relationship with him?

Tiltman: Not especially,

Schorreck: Did you spend much time with him?

Tiltman: No, I don't think so.

Schorreck: Is that where that term was coined or what?

Tiltman: That was the way it was coined but, in fact, I believe that the Swedes or somebody or other, there was a point in which they had used it to change the setting.

Schorreck: That is what finnery was in, I mean that's what finnery is?

Tiltman: That's the origin.

Goodman: I remember the use of the word with respect to the Enigma - something I read on the Enigma of the word, but I don't want to complicate it because I don't know anything about it.

Tiltman: Friedman was very insistent of that. We couldn't get on with the war unless we had an established joint nomenclature for everything. As the Americans had taken this much, Friedman himself had taken it much more seriously than we had; we would have to accept the American.

Goodman: He liked to see things defined?

Tiltman: Yes.

Goodman: Was his principal purpose for his part of the trip, then a definition

of joint terminology, codes, ciphers, etc.?

Tiltman: I don't remember, but I wouldn't think so. I remember seeing him with McCormack several times.

Benson Schorreck: Now the visit, the American Party then had full access, full discussion of whatever they wanted to talk about or see?

Tiltman: Yes. In that period, and I don't know the date of this, I met Winterbotham in 1940, we had a lot of trouble in our Hut 3 which was the reporting end of the Enigma story, because the War Office and Air Force insisted on having their own intelligence officers in Hut 3 because they didn't believe they were being properly served. The Air Force sent a very good, very clever man named Humphreys and the Army sent an ex-guardsman named Curtis, Captain Curtis, and quite by chance (this must have been sometime in 1941), I was shown a report which Curtis had made to one of the Deputy Directors of intelligence in the War Office that the reporting would never be satisfactory until the whole of the Enigma operation was put under the services. So I took this report to the Director of Military Intelligence, Davidson, who was a friend of mine, and I said, "Isn't this a bit out of order?" and he said, "Certainly it is, you're my representative at Bletchley Park, Curtis musn't take any action except through you. And he will be told so." Well, he did it again, so I reported it. I reported this to the Director of Military Intelligence and they had a board meeting on what they should do about their representatives. I'd never attended a board meeting in those days. They were very informal. Menzies would be sitting on a screen in front of the fire and there would be the three Directors of Intelligence.

Goodman: This was not about the report, but about the reporting channels?

Tiltman: Yes, about the reporting channels. They first of all took up the story from the DMI about Curtis. They all agreed, of course, Curtis got to go anyway, we can't leave a man like that in the outfit - told how he must do things and doing the same things again. And then they got to Humphreys. They talked about him for a bit and the Director of Air Intelligence turned to me and said, "Tiltman, you've been very silent all afternoon - what do you think of Humphreys?". So I told him. I told him he was a very clever man, but he was creating all kinds of difficulties for us. So he said, "Well, Humphreys will have to go, too, and if so, then the Navy must give up their man, too.". Quite innocent, Commander Saunders, who had been with us before the war and who was a friend of all of us, was then turned adrift and they started again and after two or three tries, they put Eric Jones in, who was an Air Force officer. After that, we never heard anything about troubles in Hut 3. He may have had some but they never came out.

Goodman: So reporting from Hut 3 didn't flow through yourself?

Tiltman: No. I didn't have anything to do with it. Winterbotham says in his book, at some point, that for some reason he had stopped having his party in Hut 3 and Menzies never told him why. I could have told him why - it was because of this board meeting.

~~Schorreck~~ Bonifacio: The American party in '43 - I read some of their reports. Colonel McCormick, he describes the system which I think Winterbotham was describing, of Sigint reporting the CXMSS - usually would begin with ascribing it to some other source.

Tiltman: It was supposed to be a spy named Boniface who provided the information.

Benson ~~Schorreck~~: Was this still going on, this type of reporting?

Tiltman: It didn't last very long. I don't know to who I said this, but I said, "Now you've divided people into three classes - you've got the recipients in the services, who know the source of this, there's no danger; and you've got the kind who don't know the source and too stupid to guess it and the~~ir~~ y're no danger; but there are also other people who don't know the source, but can guess what it is and they're not restricted in any way". That, as far as I remember, is the Boniface story.

Benson ~~Schorreck~~: Let me see if I want to go further on this story.

Tiltman: I think I should say that in all these visits, I took every opportunity of getting to know the cryptanalysts and performing cryptanalysis with them, which I think was very valuable to both sides. It ~~up~~ put us in the sort of position we were in in the beginning of '45 when the GEE, the German one-time pad was broken over here and a telegram immediately came over to us and we worked in parallel as far as we could. There were one or two difficult moments over liaison - there was when the Japanese ceased to use their - the Japanese Army and Air Force, ceased to use their keys as additives and introduced a mixed alphabet into it and American services were very reluctant to start with handover. This was a very difficult time because stuff was being broken in Ceylon and India and Australia and everywhere. My Liaison Officer, Stevens, wrote a famous paper headed, "Odd Behavior at a Hall". He knew that his friends were trying to keep something back from him which he knew already.

Goodman: Well, in the visits since you did work on [not imp.] basis with them, were you exchanging technical details of Japanese ciphers as well as anything you had in German arena?

Tiltman: Yes.

Goodman: Was it principally those two parties or were other countries involved?

Tiltman: I think other countries were involved.

Benson Schorreck: You continued to deal with Telford Taylor through the war?

Tiltman: He stayed with us during the war, yes. He was a most valuable person because he had the same sort of view that I take the credit in having myself. Once we dropped this exchange, there was no difference between an Englishman and an American. He had no prejudices at all. If he wanted to say something rude about an Englishman, he said it. It was very important to have somebody about to do this.

Goodman: That honest?

Tiltman: Yes.

Goodman: You mentioned in a previous conversation, GEE collaboration you had worked on - Would you like to give us a little more detail on that?

Tiltman: This must have been in January 1945. We had a telegram from Rowlett direct to me. By this time, I had a personal assistant, Professor Vincent, the rather distinguished Italian Professor from Cambridge, and he brought this down to me and said, "You know what this means? This means somebody's got to get down and break all the German one-time pads as far as they can and in a hurry.". So we went into action to try and catch up and I actually dropped the wheelers that we used, I got out the wheelers that we used for the Tokyo link, in which I had a telegram from Rowlett thanking me, I got it before the Americans. But we did a lot of work on GEE. In those days, we had Hollerith machinery, but the Hollerith man, Friedbaum, used

to come in at night and work with me on it. It was very late in the war. How much it affected the outcome of the war, I'm afraid I don't know.

Goodman: Did you actually, we've asked this question before but it would be nice to have you respond once again with respect to World War II.

Tiltman: Yeah.

Goodman: Everyone makes a great moment of the business of how this information intelligence affected the war. We wondered if you had any personal experience or impression of how you saw the intelligence being used, if indeed you did?

Tiltman: No, I had so little to do in intelligence, I couldn't take any interest in the output of it. I had too many other things to do.

Goodman: You just had your head down working away all the time?

Tiltman: Yes.

Goodman: I think, do you want to go on to the U.K./U.S. agreement?

Benson ~~Schorreck~~: No, I'd rather stop here with the war-time.

Goodman: I had one to make you go back a couple of years. Mr. Schorreck was concerned about your memory of how you were told about Purple and who had broken it and the details - who built the analysis. . . do you recall that?

Tiltman: My, my, the only thing really I have to say about that is I never worked on the Purple myself. After it was broken I did some early work at the beginning, but I never really worked on it. I don't know that I was ever fully briefed. We put a party on to work on it, but when the book, The Man Who Broke Purple, came out a short time ago, I was reminded all that Friedman ever told me was that it was he who managed to get out of the State Department, the long

English handout, which the Japanese passed in the Purple Machine, which resulted in its actual breaking and that probably without his influence, might have had difficulty in getting it until much later. That's all I know about that.

Goodman: Do you recall Colonel Bullock and Colonel Minkler?

Tiltman: Minkler, I only met casually. Bullock took me over to Arlington Hall, but that was surely after the war, wasn't it?

Goodman: No, Sir. I believe it was 1942 or so.

Benson ~~Schorreck~~: Minkler was head of the Army Arlington Hall operations at about I don't know, April '42.

Goodman: Yes, he was relieved.

Tiltman: I suppose I met Bullock in '43.

Benson ~~Schorreck:~~ Yes, he was replaced by Bullock and then Bullock was replaced by . . .

Tiltman: Of course, I was over here another time you remember in the beginning of '44.

Goodman: No, I didn't.

Benson ~~Schorreck~~: No.

Tiltman: Yes. We had a meeting on the subject of Japanese ciphers. Sir Edward Travis was with me and Colonel Mark-Johnson, my friend, came from India; Sinkov came from Australia (and was more Australian than the Australians) and we had a good general meeting on arrangements then.

Benson ~~Schorreck~~: Who chaired that meeting, so to speak? I have some papers on it and I've seen a photograph of the room?

Tiltman: I don't remember that.

Benson ~~Schorreck~~: It's just curiosity.

Goodman: Well by that time everyone was pretty much into whatever was. . .

Tiltman: Travis was there, and I'm sure Wenger probably chaired.

Goodman: Was it a tri-service conference with everyone present?

Tiltman: Yes.

Benson ~~Schorreck~~: Here's a good photograph show . . . there's a key that does with it.

Tiltman: General Cordeman was there.

Goodman: Cordeman and Clark .

Tiltman: General Mark Clark.

Benson ~~Schorreck~~: Perhaps a question that would interest me is I've read a good deal about Enigma and Bletchley, Enigma and Bletchley Park are sort of the thing that demonstrates the effort put into it. You almost never hear anything about how much you had devoted to the Japanese military codes and what-not. It's as though the whole thing, Bletchley Park was consumed by Enigma.

Tiltman: Well, the Japanese military attache was a separate job. That was a joint British/American effort. I was the first person who read anything into it. I attacked an overuse of one part of the tables.

Benson ~~Schorreck~~: Was there any assist on that from any lifts from the Japanese military attache? There are many items of interest that the FBI had seized certain materials.

Tiltman: I don't remember anything like that. We had a large party of about 600 or 700 people under a man named Mink, a Japanese military in air ciphers and we had another party working on military attache. They both came more or less under me.

Benson ~~Schorreck~~: Apparently the main Japanese military codes were an overwhelming, almost overwhelming task. It took a long time to . . .

Tiltman: Well we had a lot of trouble with them.

Benson ~~Schorreck~~: Mid 40's.

Tiltman: We were put out of business from sometime in 1940 until

well after, quite a bit after Pearl Harbor. Then they made another change after that.

Goodman: Well, I think this is probably as good a place as any to stop.

Benson ~~Schorreck:~~ Yes, I'd like to break with this period.

Tiltman: I don't reckon I've been very good today.

Benson ~~Schorreck:~~ We've covered a lot of things.

Goodman: We've asked for almost the impossible. We've covered so much ground; we've caused you to go back and forth a little bit.