**OHNR:** 1993.20 **DOI: 930611**

**TRSID:** **DTR:980121**

**QCSID:**

**INAME: Oliver R. Kirby**

**IPLACE: FANX B**

**IVIEWER: Charles Baker, Guy Vanderpool, Dave Hatch**

**BAKER** This will be NSA Oral History 20-93 with Mr. Oliver Kirby. Mr. Kirby was a former Assistant Director for Production which later became a (1G) position. It later became DDO. He's visiting with us (3G). We're in the Center for Cryptologic History Conference Room in FANX III. The date is 11 June 1993. Classification is Top Secret Codeword unless otherwise indicated at the end of the tape. The host of interviewers includes Charles Baker, Guy Vanderpool, Dave Hatch, and (B% Margaret Peterson). (TR Note: period of silence here) (cuts in) a little about your background first.

**KIRBY** I was born in Leroy in central Illinois. When my folks moved to Bloomington, Illinois - I grew up in Bloomington - I attended Bloomington High School. Among other things I worked for Frank Brother's Feed Company. It may seem incidental but actually turned out to be kind of important later on because I became at 18 the United States expert on white field corn and almost decided to go into agriculture. I went to the University of Illinois and majored in chemistry. I was one of the few fellows at the head of the class. I had a full deferment from military service and was scheduled to go to Cornell University and to take up a teaching scholarship in chemistry. I gave up my deferment to go into the service to the great amazement of my family, my teachers, and everyone else.

**BAKER** This was when? About 1952?

**KIRBY** Yes, at that time...and the reason was very simple. At that time almost all of the young men I had grown up with in Bloomington had volunteered for service and were in the army air force - which it was at that time - or the army. And, in fact, as a historical note, Bloomington, Illinois, was one of the places that caused the change in assignment of fellows who came from one place because of my football team, nine of the fellows were killed in North Africa because they all joined the same unit in the early days of the fighting in North Africa. And in fact, when I go back to my reunions there were only five members of the football team still alive. I did give up a deferment, and people asked...I've given talks and I've said, "I'm sure glad that I got involved in the military service." And people will look at me and say, "You didn't have a choice. You were drafted." But that's not true. I gave up a deferment. I went into military service. I did not go to Cornell University. And in fact, when I came back here years later in 1948 and got out of the Army Signal Corps I was planning to go back to Cornell because I had written, and they still were willing to take me back as a teaching fellow, but I had gotten so far away from chemistry and so deeply involved in the signals business. But that was much more fascinating, and I decided to stay there. So when people ask how did you get into this business, two things: 1) at the University of Illinois they did have...remember the

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University of Illinois had the Army Signal Corps cryptanalytic course, and the University of Michigan, I believe, had the Navy cryptanalytic course. A lot of the early members of ASA came from the army ROTC course at the University of Illinois. It was just very fascinating. But while I was at the University of Illinois, the war started to happen, and we lost our instructors, so another fellow and I completed all the courses. We sort of worked together and went through all the lessons, and then we proceeded to teach the class as long as it lasted. And we completed that course. I graduated from the University of Illinois in 3 and one-half years with almost a master's degree in chemistry because I carried many, many more hours because I had reasonably high grades - 4.7 (sic) something average - and I was allowed to take as many courses as I wanted, and I completed a lot of proficiency courses. So I almost had a master's degree except for a thesis. However, I never went back and finished that out. But we did actually train one last class in the cryptanalysis course.

**VANDERPOOL** Who were some of these folks who went into ASA from the University of Illinois?

**KIRBY** Roy Johnson, Dale (B% Marston). I can't think of a lot of them. A lot of us were. As I go down the list, if I look at a list of personnel I can pick out about a third came from the University of Illinois. And I knew them because they were either the class ahead of me or behind me. Ahead of me; there was no one behind me because I think the course stopped after that. There were no instructors as we got into the war, and so the course was dropped. But these were the people who, I think, were some....and Roy Johnson, of course, was here in the Russian section until he died. He was here when I was here. And that was a switch. See, I worked for him and for Bill Bundy over in England during the war as a part of the 6813th Signal Detachment, and then when I came back here eventually I became the head of the Russian section, and then of course ADP, and Roy worked for me then from that angle. But he was a very, very good cryptanalyst.

**BAKER** Now when we go (2-3G). (laughs) We're getting back here too fast. When you decided to go on active duty where did you go? Did you go to Monmouth?

**KIRBY** I went to Monmouth because, yes. Well, you did not have the summer camps. So while I had completed the R (TR Note: tape cuts out here) I went to summer school and that's how I completed advanced ROTC at the University of Illinois. I completed the entire ROTC. So I was qualified for my commission, but there were no summer camps at that point, so I went to Fort Monmouth and went to OCS at Fort Monmouth. At that point it was very unusual. I actually had a commission, but it was not active until I had completed the summer camp requirement, and the summer camp requirement was OCS. I received double inspections from my company commander and the battalion commander since I was a commissioned officer and the rest of them didn't have commissions yet. And it was the most miserable time in my life. But also I had been in charge of the drill team at the University of Illinois, and they wanted to keep me as a "tac" officer. I kept calling the few people I knew at Arlington Hall Station saying, "Get me out of here when I complete this. I do not want to become a tactical officer at Fort Monmouth, New Jersey." So I did come back...(cut off by Baker)

**BAKER** So, you already knew people at Arlington Hall.

**KIRBY** Oh, yes. I knew a few at Arlington Hall because of being at the University of Illinois. And

then I did come down here when I completed it in May,1943 or '44. I can't remember which now. When I completed OCS I did come down to Arlington Hall Station. I was put up in the Administration Building, and I knew German fairly well. I had been a translator of German chemical documents and all, and I had a major in German also from the University of Illinois. I had two majors: chemistry and German. And I made my way through school by translating for graduate students, translating German chemistry documents. (TR Note: telephone rings here. Recorder turned off momentarily) (cuts in) I had clearance problems. My mother came from Scotland. She had family, one of whom was a missionary who was in interior China, and nobody could find him. So I have little sympathy for people who cry about how long it takes to get a clearance, because I sat there translating German documents, learning German script, and doing all sorts of nothing jobs for many, many weeks while I was waiting for the clearance to come through. Then when I was cleared I went in to work for Dr. (B% Pattongill) who had a group of translators in, I think it was "A" Building at Arlington Hall Station. I worked with them, and that's when I began to figure out how you actually did some of the things you did in the SIGINT business. Because I started keeping copious notes on the things I would translate on ships' captains, the names of the ships, the numbers of the ships, and all sorts of incidental information. By the time I left, I was the font of knowledge of personnel, and identification of personnel. So I decided this was a really good thing, and I carried that with me the rest of my life. You'll probably find that I insisted on very strange kinds of records being kept wherever I went, but it helped in cryptanalysis. It helped in exploitation and everything else. But I learned that from finding that nobody had files like that when I first got to Arlington Hall Station, in the little area where I was. I did not want to be a translator. However, I was sent over to England with the idea that I would become a German translator on the four-rotor ENIGMA program. I flunked the only test I have ever flunked in my life deliberately. When they took me in to interview me I found that if I didn't do that - I had checked around enough to find that I could get into Hut 6, which is where they were doing the cryptanalytic work, and that's what I wanted to do. I did not want to sit there and translate. I did not like that at all.

**HATCH** Stuff that had already been decrypted.

**KIRBY** Yes, I wanted to get in to where you found out how things worked, and how you did it and really learn something worthwhile. I already knew how to translate. I didn't need to learn anything on that. I flunked my test.

**BAKER** About what time was this? When was this, sir?

**KIRBY** I went over in February. I went over on the Mauretania troop ship in February of 1943 or '44. I can't really remember. (In) 1944 I went to ETO.

**BAKER** Prior to D-Day.

**KIRBY** That's right. When I got there at Bletchley, and that's where I was sent. First in London, and then I was bombed out in London the first night I arrived there. The billet that I put my stuff in...I got up from the subway in time to see it blow up and all my stuff with it. So I ended up in London with nothing but the clothes I had on. All my stuff destroyed, and when I was sent to Bletchley Park I had to borrow clothes for a while until I could get back to London to get new uniforms. At any rate, I got there and lots of things hap-

pened. Then I did get assigned to Hut 6, and I did get assigned to working on the actual solution. To me, this was the fascinating part of it, and this is where you learned. I learned several things from the British: number one, it was an organization with no organization, and it worked wonderfully. You were assigned to jobs depending upon your capability. For the person working there the great accomplishment was to be designated head of shift. That meant that you were in charge of making all the decisions about the cribbing, what would be run on the BOMBE's, what would not be run on the BOMBE's, and all the rest. I also though, in the time that I was waiting for my clearance, had studied traffic analysis which was not classified. So when I went to England they tried to put me in a traffic analysis class, but I got up and gave a lecture on traffic analysis, and they decided to forget that. So they actually put me into a class on learning how the BOMBE's worked which was very, very helpful. But had limitations, and the navy BOMBE and the American BOMBE were just coming into being at that time, solution equipment. To me that was really a useful use of time. After about 2 months I was designated "Head of Shift" and later I became actually the head of the groups working on various shifts. You rotated around. It was not permanent. There would be say, Alice - and I can't remember her last name - would be the head of shift one night, and I'd be the head of shift the next couple. And then being an American with nothing else to do, I used to fill in for all of my British friends who had families and wanted to go on leave. I had nothing to do, so I did double shifts most of the time I was in England.

**BAKER** You were still single.

**KIRBY** I was still single. I was over there unaccompanied and....no, I was married. But I was over there unaccompanied, of course, and so I had nothing else to do, and I didn't like to go back to London particularly, so I did dual shifts most of the time and filled in for my British friends which is why I had so many friends in the UK. After the UKUSA conferences, after we did all our cooperation because most of them....(cut off by Baker)

**BAKER** They owed you. (laughs)

**KIRBY** Yes, they owed me, lots. And I actually then moved from...I was becoming familiar - not with the (1G) ENIGMA - the navy stuff - but with the scrambler work and with the Turing section. I was studying the computer-type equipment in Turing's area, and Arthur Levinson was there. I did not work with Arthur, but I worked with some other people in that area, and they were starting to educate me in that. That was even more complicated. Quite a bit more complicated than the ENIGMA. On the ENIGMA there were really just certain you did. You solved the ENIGMA messages by finding cribs, by fitting the cribs, by writing menus, and the menus had to follow certain rules, and then you could run them eventually either on American BOMBE's or the British BOMBE's, which were relay-operated BOMBE's, and you had to make those decisions on what you did.

**BAKER** Did you have both type BOMBE's there? Were there some American BOMBE's in England?

**KIRBY** No, no. You had to send it by message over to Arlington Hall Station or to NSG where the BOMBE's were run. And then the message...if they got a hit, they sent the hit back, and then you took the hit into the solution room which is where you took care of the other 150 trillion possibilities in about 15 seconds. Because the way it was done, the

way the machine was made, the Germans, by increasing the probabilities of the machine from about 100 trillion to 200 (trillion), made it so that it was a machine that no letter could come out enciphered as itself, but also they developed a phenomena which was known as a diagonal phenomena, which I helped to find at one point, and with those two things all of the massive, massive probabilities were supposed to stump you. It's what made it...it reduced to about 2 million possibilities, at the most, and it reduced this final solution to a hand solution that you could almost do by looking at it, by inspection, and get rid of all of the rest of the stuff that was there, which was not published until the end of the war, and now you've got all kinds of books out. But if you look at the diagonal, the whole thing just...those are the things that let us do it.

**HATCH** Now, the traffic you were working, was it army ENIGMA, high command, "Wehrmacht," or what?

**KIRBY** It was..."Luftwaffe" was one of the principle things. The OKW (TR Note: probably short for "Oberkommando der Wehrmacht" - Army High Command) was not solved solidly until just before D-Day. And one of the former directors of GCHQ and I, sleeping on tables in the "Q," or Quiet Watch it was called, which is where you did the research. We had gone to work on the "Wehrmacht" stuff, and what they did was they used the machine correctly. They folded messages; they bisected messages; they hid the beginnings and the endings, and we did not solve that until a couple of operators on a logistics link (at) "Wehrmacht" Headquarters used it improperly, and they put the message beginnings at the beginnings where they should be and all, and we broke into that just in time to get Rommel's inspection report of the coastal defenses which was 10 days....it was a 21-part message - there are some things I still remember even after umpteen years - it was a 21-part message, and it was 2 weeks before the scheduled date for the landings.

**BAKER** Which you didn't know at the time.

**KIRBY** Oh no. And it gave everything. It gave totals. Rommel was a wonderful general; very, very good, and he gave a totally complete report. The only unit that was out of place at the landing was the 2nd Infantry Division just north of the landing area which had gone on a local, unscheduled maneuver before the landings. It's the only unit that was out of place when the landings took place. We also, of course, were able in that same message, and the same series of messages because he sent a couple of follow-ups, he was still disagreeing, and you'll find this written up, and I'm sure some of you folks know, dug in then. He'd always disagreed on where they put the reserve Panzers. He wanted them right behind what turned out to be the landing area. Oh, we used to just hold our breath. I arrived in England after Rommel had sent back his famous messages - but I read them - saying General Montgomery and the British can not be this smart. Somebody is reading my mail. Would you please look at this. And people were still holding their breath when I got there because...and then finally the answer came back (saying) we have looked at this, and the machine is such that it would take 200 years using the equipment now available in order to set a message. And so forget it. You have no problem at all. And of course, he was absolutely right. They were reading everything.

**VANDERPOOL** Ironic. They hear the same speech from my (B% math) people all the time.

**KIRBY** Well, you can not believe this because the thing that is so fascinating about this is, the whole business here is one that Frank Rowlett used to say, "Young man, it is often better to be lucky than smart." And the other thing is, you never know the stupidity of the mistakes somebody is going to make. And you never know how you will be able to exploit the stupidity of the mistakes that someone makes, and he will never understand that you could do that. And this is the reason this business keeps going, because you live on mistakes of others. You live on the things that they don't see. The things...the German mathematicians...and I still with my friends who are mathematicians and engineers, I hate to tell them what our adages were in the early days, and that was we fervently hope that their very best mathematicians and their very best engineers in the business who knew nothing about solution of codes and ciphers would build the codes and ciphers we had to go up against, because we would probably solve them. Because there would be something they wouldn't know about that they would put in. And if you don't believe that, look at some of your recent things of about 10 years ago on the chips. They're supposed to be unsolvable. And who is our blind friend on NSAB who sat there and in his head solved how you would do that with a PC until you reduced the numbers of possibilities on the chips by about a half? And then they became very secure. Same thing. The numerical advantage killed you because you did the wrong thing. We read the ENIGMA. The air (TR Note: probably German Air Force) was one of the very high priority initially. We couldn't read the army, the "Wehrmacht." We did read the air, and then I was assigned to a little program called SILVER, and I forget what the other name was. Some very obscure transmissions that were coming from a place way up north known as Peenemunde. This was for...who was the British guy who was the advisor to Churchill, Smith?

**HATCH** Jones?

**KIRBY** Jones, Harvey Jones. Jones was hated by the people, the British, in GCHQ. Well, they hated him. They thought that he was a usurper; he was a faker; he had the ear of Churchill, and so no one ever volunteered to go to work on this stuff which he wanted to go to work on. I am the young American officer who went to work on this stuff along with a Scottish professor - McPherson, I believe, was his name. All I remember is he ate cheese and kippers for breakfast, and he never brushed his teeth. But anyway, I worked with him on these messages, and it turned out that this was the V1 and the V2 experimentation, and it was telemetry. And it was very, very...this fellow knew something about telemetry. I knew nothing about it. All I know was...and he explained to me this was all messages. I figured this is not possible to do anything with. But finally we decided that - and since I was a linguist - I decided they had to have some kind of addresses and all. And so we figure out what the addresses ought to be. And we figured it out wrong. However, one time one of them was wrong, worked, and we broke into the thing and we read it from there on. Better to be lucky than smart. Because I could say, "Oh, it was great intelligence we..." We didn't. We figured out the wrong thing, but we did break into it because where we used a date, they actually were folding this stuff slightly, and it happened to be a part of the telemetry, but it had the date. It actually had the day with September and the date all written out. And we were planning that it was a "Meldung von" and that was not right. But we got the date and we broke into the thing.

**HATCH** You were getting the actual telemetry from the missiles or while being passed from one station to another?

**KIRBY** Being passed from the ground station...they were passing the results back to Berlin. Part of the reason that the Germans lost the war was that when Rommel was in North Africa, he was required, as were all German generals, to send their plans back in detail to the High Command in Berlin ahead of time. Therefore, we always got advance notification of what was going to happen. Montgomery exercised against Rommel's attack on El 'Alamein before it ever happened because we had all of the information on how many tanks, what he was going to do. And because of Hitler's stance that he could run a war by really himself and wanted to check what the generals were doing, we always, always got information. What was happening here was they were sending detailed reports because it was a high-priority project of what was happening on the development of missiles, the V1's and the V2's. So these were very narrow, compacted reports. It was not the total telemetry. It was the telemetry that had to do with successful shots: altitudes, speeds - I didn't know what it was at the time - the weight of the explosives on board, point of impact, how close they came to the target, which was never very close. It was no where. I mean, those things just flew. That's all.

**HATCH** So it wasn't telemetry being recorded. It was the results of...(blocked by Kirby)

**KIRBY** The results, and they gave some telemetry. They would give the points of, say, on assent and on descent, and then in-between there was too much stuff, and so they would simply say, you know, flew from A to...and then you picked up a data point over here, and then when it came down. Now that was principally on the big ones, the little airplane, the V2's. The V1's, my God. They just went anyplace.

**BAKER** They were already impacting in England by then anyway, the V2's.

**KIRBY** Well, this was before they started using them operationally. We were reading the stuff.

**BAKER** Was this either the V1 or...(cut off by Kirby)

**KIRBY** Both because they were attempting to...they started actually using them long before they knew what was going to happen, because I think they came to the conclusion you had to. There's something going to become a terrorism thing, so if you send them over and they land on the shore over there, that's hitting the target. And the others, you can do much better. You kind of figure out where they ought to hit. But the point of impact was wild. Believe me, you did not know within a mile and a half or so where those things were going to come in. That came out of the telemetry. The other thing, though, was the altitudes and the speeds. However, it took some kids developing cardboard slide rules for the guys in the aircraft to calculate the speeds of these things with the wind and all. That was really the weapon that was used by the antiaircraft and all on the ground. Local calculations. All of this scientific data they had didn't really help much, except we knew that they were there and what they were going to do. They were not a surprise. But I was able to solve that, and Harvey has...I've talked to him since, and he identified me as the young American lieutenant who worked on the stuff. But I think the thing that we learned in England during that training period...and it was really terrific, was the fact that SIGINT...In the first place, you can not separate traffic analysis and cryptanalysis, and the second place is, there is no such thing as ELINT and COMINT.

We worked on SIGINT. We worked on anything that was available. We put it all together at the same time. I didn't know what fusion was. We hadn't invented that word, but I also didn't know about COMINT and ELINT, and I did not know about T/A as being a separate art. All I knew was that all these things you did in order to get a solution, and I have still felt that way. I felt that way back here. I couldn't believe that we were not working on signals, any signal that had to do with an event. So, as you probably are aware, in the work that I've done in Greeneville since, and I've been up here on NSAB, I have pushed for something you still haven't quite done. That is, to handle the signals having to do with events, all of them the same, in the area where you are looking at analysis, and prediction, and tracking of a specific event. You should have all the signals available there, be they navigational signals, be they part of the weapons control, be they messages having to do with command and control; whatever. You do it all the same way. And that was one thing that came through very, very loud and clear. And the other thing was, that the name of the SIGINT business was to find the simplest, most direct solution there was; to use the signals themselves as the basis for your solution effort. Not to throw stuff into later a big computer and crunch up everything and hope you could somehow or other figure out how to handle the mess that came out the other end and segregate it into something meaningful, which is what we so often do. But this was the thing. And the other two things that we learned was that you must know much more about the other man's signals than he knows himself. You have to know a lot more about his signal methods, his reasons, the systems he's using, traffic passing, traffic handling methods. You have to know a lot more about that than he does in order to actually do the job. But that and the simplicity of getting work done were two things that really...and the next thing was search. Only it was not called search. We called it discovery. I only learned about search when I came to the States. Search was when you had rotating cover looking for things that you knew should come up. That was search. Discovery is when you looked for new signals, and you spent about a third to a fourth of your assets looking for new links, new signals, new things coming up. And we (B% felt) new signals analysis, or tech signals analysis, which we were never able to really sell to our bosses when I got over here in...when we were developing our own signals intelligence business, that search was always something you fought and fought for, because most people wanted you to just find out all the unknown things in time to do something with them. And I believe that that is still a problem, a bugaboo of the signals intelligence business. You can not have a dynamic and viable signals intelligence business without a tremendous amount of search facilities so that you look for, find, and analyze these signals. Which was a very important part of the British operation.

**VANDERPOOL** Right. At the time, Mr. Kirby, were you aware of this organization called the Radio Security Service, or the RSS in England?

**KIRBY** Yeah.

**VANDERPOOL** Of course, (B% Barclay) Street worked with some of that traffic. Were you involved in that at the time at all?

**KIRBY** No, not directly. No. I became involved later on when I was here. I became involved just a little bit in some of the pre-TICOM. I know we worked with the OSS and the British Secret Service guys, and I became an advisor, because I could visualize the way things

ought to be and how things ought to work. It was a little bit of a strange assignment. This is one I've never talked about. But I did do some things that were strictly on a basis of personal capability and interest that I had. I knew about it. I was not directly and intensely involved.

**VANDERPOOL** The reason why I ask that question is I'm trying to find out how the Russians and the Chinese Communists got along before the Korean War; what their relationship was. And as a subset of that, of course I'm looking into the communications that existed between those two entities, and I've read Brigadier Tiltman's manuscripts about the Comintern communications in the thirties and how that evolved and so forth. So that's where I'm coming from.

**KIRBY** We could talk about this a little bit more later, but basically, let me tell you what part of the problem was. Yes, I did know about this. I could have learned a lot more, but I wasn't interested. I was only interested in the stuff that would get the war over and get me out of uniform and back here to the States. I had no intention to become a career anything, except get back and get back to chemistry. And I'll tell you that's what lay behind a lot of things I did, and I wish I had done differently now - or didn't do - that I wish I'd done differently. I had a chance to get very much involved in what little was known about the Comintern, the NKVD, the liaison with the Chinese which was going in some fashion. What became of the Chinese Communists...remember they didn't exist then. It was only the guerillas in northern China that existed then because the Chinese Nationalists were running the thing. These were the guys in the hills. Now, you'll find a fair amount of information about what happened at the time they took over from the [redacted] in 1948 when the Russians were rounding up all sorts of equipment, and munitions, and guns, and everything else to turn over to what became the Chinese communist groups as they moved down from northern China into mainland China [redacted]

EO 1.4.(c)
PL 86-36/50 USC 3605

**VANDERPOOL** They were discussing turning it over to the Chinese?

**KIRBY** Man, the orders were there, what they were to round up and that they were to turn over. It's all there. [redacted] by Vanderpool)

EO 1.4.(c)
PL 86-36/50 USC 3605
EO 1.4.(b)

**VANDERPOOL** Do you remember what the [redacted] code was? The [redacted] Or was it?

**KIRBY** Sure. Well, we did exploit some of that. We did turn...(cut of by Vanderpool)

**VANDERPOOL** Well sir, that's a real revelation. You knew about that then?

**KIRBY** Oh, yeah. And that was the time that I was still working with Waldo (B% Duberstein), and I remember these things quite clearly. My memory and the specific dates sometimes is bad, but that I remember very specifically, and then it died along with everything else in '49 when apparently we had been...(cut off by Hatch)

**HATCH** 1947 or '48.

**KIRBY** [redacted].(cut off by

Hatch)

**HATCH** Yeah, but that was in August of '48.

**KIRBY** Was it '48? Believe me. See, there's where my...(cut off by Hatch))

**HATCH** (2G). But you'd already said we know it from your speech a couple years ago.

**KIRBY** Yeah, but this stuff we were reading, and that was one of the main things. That was the high-priority stuff that was in it, was the rounding up of equipment and all to supply what later became the Chinese communists.

**VANDERPOOL** And that was known...(B% what is) quote, the Special Cream Category that was issued?

**KIRBY** Yeah.

**VANDERPOOL** They reference that category.

**HATCH** But they had the [redacted] on every one of the messages they'd send, the cards you kept, which I want to get into, but we're getting ahead of you.

**KIRBY** Well now, by the way, this was a part of my old problem of keeping track of what you were doing, and what you were reading. It was hard to instill this. And remember, we were just beginning to put machine records in, which was totally against what everybody here wanted to do. When we took hand worksheets away from people and made them use machine runs, you could have heard the screams out here at Fort Meade from Arlington Hall Station. But I figured there had to be records - because I had tried to find things in the manual records that weren't kept - on things I thought were fairly important. But you see, my big problem, even when I was on the TICOM stuff, was I had very little...I did what I was supposed to do. I rounded up people who had worked on Yugoslav, and Russian, and we found the Germans who had worked on Russian stuff. It wasn't until very recently that I realized I had picked up one of the copies of the codebooks that led to VENONA, and I didn't even realize it until Lou Benson told me about it. And I found my...I don't know. It's on the back of a laundry slip, or something. He's got my original thing that I had written the information about going out and talking to a member of the "Forschungsamt", the Goebbels group, about this. And I didn't even realize that's how little it meant to me. I was very interested still in finding out about all the German stuff we didn't know about, but the rest of this stuff I just did it, because I was coming back and getting out and was going to do something else.

**VANDERPOOL** Well, in the war then, you were aware of this RSS and the Comintern collection back then?

**KIRBY** Yes. You see, the RSS, there was a station right near Bletchley. I had a good friend who was there, and I used to go out and wait in the anteroom. They were as ticklish about letting you near that facility. Now, there were some OSS guys who worked in there, but it was an RSS facility, and there was cooperation; I can tell you that. But I don't know what was going on because I never tried to find out.

**HATCH** It was kind of compartmented.

**KIRBY** Boy, was it compartmented. Sure. That's the first time I...you know. Everything where

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we worked at Bletchley, I guess, was compartmented, but I didn't think much about it. And you went out there, and man; you couldn't get beyond the little anteroom which was outside the reception room while you waited for somebody. This was an RSS facility. Now, I could have gotten access to it. I was invited at one point. They had something they wanted to have looked at, and I didn't want to get involved in anything else. So I said, "No." I was not the least bit interested. I knew nothing about it. I obviously couldn't help them, and I sure as heck wasn't going to learn because I could tell that the war was going to get won by us at that point. I just wasn't interested in anything else.

**BAKER** This outfit was intercepting Soviet traffic?

**KIRBY** Yes, it had to.

**VANDERPOOL** It existed for the purpose of collecting clandestine communications. It started out with German, enemy...(cut off by Kirby)

**KIRBY**

**VANDERPOOL** There were OSS people?

**KIRBY** There were OSS people who had access to some place there.

**VANDERPOOL** Do you think that was primarily against the Germans, or was that also...it didn't include the Russians at that time, you don't think?

**KIRBY** It was against the Germans. I believe that facility included Russian. The only reason I knew about Russian prosig's and prosigns is because I had learned it from somebody who came over and gave us a lecture on that from that facility.

**VANDERPOOL** Okay. They evidently copied Soviet communications back in...(TR Note: tape goes blank here.)

**KIRBY** (cuts in) Are you on again? Okay, I believe the OSS folks were probably involved in German agent stuff. But I do know they had people there who were experts in other communications, because as I say, at one point we were using some of the facilities being used against the Germans after D-Day. Some of those facilities were being used to copy Russians which we never saw, but we were given a lecture so that if something came through (and) we didn't know what it was, we could identify it from the prosigns. See, we were all TA and linguists and everything, and you did the whole thing. And so we were then going to be the TA sorters if something came through in a batch of unknown stuff and turned out to be Russian. One of those things. We could tell what it was, mark it, and ship it out of Bletchley to wherever they were taking it.

**VANDERPOOL** So this lecture occurred by the RSS folks while you were still at Bletchley.

**KIRBY** At Bletchley, yes. Absolutely. And (B% they probably) went off on TICOM. The only rea-

son I knew about the TICOM was because I had already had this lecture, which I paid some attention to just because it was interesting.

**BAKER** (TR Note: Said while Kirby is speaking above) Sometime in '44.

**HATCH** TICOM was in '45.

**VANDERPOOL** So they came and talked about the Comintern?

**KIRBY** They came and talked about Russian communications.

**HATCH** But I'll bet that was in '45, not '44.

**KIRBY** Could be. Could be.

**BAKER** Not all TICOM was '45. Some of it was in '44 right behind the invasion.

**KIRBY** No, no. Yeah, indeed, because it was after the TICOM...some of the things were organized, and there were some activities to pick things up from those islands off the coast which was not TICOM, but was later related to TICOM.

**HATCH** I guess so. Pre-TICOM, but TICOM, I thought, didn't get it organized until after the German surrender.

**KIRBY** That was right. That one became TICOM then. So you got your cards, and...(cut off by Hatch)

**HATCH** But that similar effort kind of followed the forces probably.

**KIRBY** There was the same effort from SHAPE Headquarters had begun before TICOM.

**VANDERPOOL** This effort by the RSS...whatever they did, of course, was secret, but this effort against the Soviet communications and the Comintern communications were obviously then compartmented during the war. Did it continue to be that way after the war was over?

**KIRBY** Yes. Well, I believe we did not really talk freely about...we started talking about Soviet agent communications on a very tentative basis after I was at Arlington Hall Station and had become involved in the Russian program for about - oh, let me see. I believe that the Russian program started over on this side in about '45. Then I arrived here in July of '45, I think it was. No, that was when I was over in England. The new program start...it was later than '45 when I came back here. I have a timeline I've drawn up at home, and I didn't bring that because it's too...(cut off by Vanderpool)

**VANDERPOOL** I think it's in your article. It's in here someplace.

**KIRBY** Yeah, it'll be on that. We started as we began to get away from the "A" Net and the "B" Net. Originally all we had on the Russian was the "A" Net and the "B" Net. The "A" Net was principally what you would now call the long-haul, HF military, and the "B" Net was the diplomatic stuff and agent, which was all over. And they used basically the same communications. You didn't know whether it was agent or whether it was just straight "dip."

**HATCH** The "A" Net was your military service traffic?

**KIRBY** That's right. And they used a lot of U.S. equipment. That's how we figured out which was which. The "B" Net was - and I believe I'm correct in remembering it that way - was

of less interest to us, but it was the "dip" and the agent stuff. We began to talk a little bit about it, but whenever we would get into anything that looked like it was really active in some of the places, we would often find that our British friends knew absolutely nothing about it, and then we'd talk about it. At that point we were not in that position. We didn't have any background in these things at all. We had started working on the diplomatic traffic at the behest of Carter W. Clarke, McCormick, Graham, and a guy named Forney who was the guy who worked for Carter W. Clarke, and these guys knew a lot about Russian agents in this country. And that's the reason we started working on some of these things, was because they had this vast interest, and they figured somewhere in this traffic there's something about the Russian agent activities in this country which we ought to be able to find out about. As we began to collect...remember, the original collection, we had almost no assets in the right place in Europe to do hardly anything against the Russians. All that we could collect was long-haul HF stuff. Anything that went across the USSR we could also pick up from the stations that had been used for the Japanese out in the Pacific, the navy stations and a few army stations. So we were just reconfiguring. And when we would find something, which we found scraps of here and there, we would talk about it with our UK friends. That's before we had our agreement or anything else. But still, most of us had a lot of friends, and we knew by person, and nobody told us we couldn't do it. So we did correspond. It was slow. It was not efficient, but we had the (2G). (TR Note: partially blocked by a cough)

**VANDERPOOL** There's a memorandum in the file, so I brought a copy if you'd like to look at it. It's a memorandum by Mr. Duberstein. This is in July 1946, and he said in effect we've just found some traffic that the [redacted] And from that the memorandums started going back over to Mr. Manson and...(cut off by Kirby)

**KIRBY** Somebody brought this batch of stuff in, and I knew it was Russian traffic, and so we got some folks to go and work on it until we discovered...but we did find out what it was called. So that much we did know. And yes, I remember that very well, and I told you we had these little tentative things that would happen now and then. And the ISCOT traffic was of great interest to us.

**VANDERPOOL** Did you ever get any U.S. collection on this [redacted] There never was any...it was all British then?

**KIRBY** The British could collect things that our guys could never even hear. So they had collection capabilities, and we never knew where it came from basically. And [redacted] who, by the way, took some of the very best of the professionals, civilian operators, among other things, and so where they put them, I don't know. We got the idea for the [redacted] from the British. Now, how some of these things happened, I have never...nobody's ever told me I shouldn't discuss those things, but we had a [redacted] and if you've been able to trace back far enough, you'll find it goes way, way back right at the end of the war. That was one of the first [redacted] things I know about. I was talking to Lou Tordella the other night, and he wasn't aware that it ever happened that way.

**BAKER** But not during the war.

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**KIRBY** Not during the war. The end of the war, right at the end of the war.

**BAKER** That would be sort of a natural with the Russo-Finnish...(B% staring) right across the border, if you just thought about it.

**KIRBY** Yeah, but ISCOT, I remember that. I remember it was very interesting. Oh believe me, young man, coverage? Hell, we didn't have a capability to cover what was the biggest traffic-carrying thing going which was the Soviet radioteletype, the Baudot stuff; 2-, 6- and 9-channel. We had no capability whatsoever.

**VANDERPOOL** The thing that apparently upset Mr. Duberstein, or at least whoever wrote the...of course, he might not have written the memo, but he signed it anyway.

**KIRBY** Waldo signed it. See, I was getting ready to get out. I didn't give a damn.

**VANDERPOOL** [redacted]

**KIRBY** That's right, but you see the agreement to exchange was a very looseygoosey type of thing. It depended on what you felt like you wanted to exchange. Until '48 that's basically what it was.

**VANDERPOOL** Sir, do you...as I've been able to recover anyway, the British did give the United States beginning about that same time, right after that, what they had published [redacted] Was that distributed to U.S. customers? Did you take that around and show that...(cut off by Kirby)

**KIRBY** It was distributed to U.S. customers. But no, it did not come to the SIGINT organization. That was intelligence organization distribution. There was a difference. Remember, the distributions in those days...the British during the war held their distribution to the commanders and to a key staff member of commands. And we basically did the same thing. You did not have any ten-thousand person lists of distribution. It was very small. They were to be action officers only. The decisions were made who those action officers were. And those distributions all happened through an intelligence chain. The Brit's and everybody else set up these offices which were intelligence offices, which controlled the distribution of the material that came from the SIGINT exploitation. Nobody could confirm where it came from.

**BAKER** Yeah, and in our army that was the Special Branch.

**KIRBY** The Special Branch.

**HATCH** And I have questions along that line, if I could get into it. In fact...(cut off by Baker)

**BAKER** Can we...are you still working World War II?

**HATCH** No, but we're talking product, and I only have a few questions, and it doesn't look like we're ever going to get there.

**KIRBY** Well let's get there. But that was intelligence distribution.

**HATCH** I know it's out of sequence, but I have a quick...I think he should be able to get rid of it in a little bit. That's the problem. I've been working the Soviet problem, the BOURBON Project, from '45 to '48, and I'm having trouble finding product. The British were producing as early as '45, these translations, just to kind of ring your memory. And they had a distribution on it. We're in the Soviet problem, okay? And they produced a translation. This one happened to be number 3, and they were serialized, and dated. They had distributions. I can't find any equivalent of American other than these 5x7 cards. Does that ring a familiar? Was that intelligence? Did you just give these cards to G2?

**KIRBY** That's right.

**HATCH** So you didn't put a distro on them? They have a serialization, but you just kind of handed them, and then they produced intelligence for distribution?

**KIRBY** No. We did not list the distributions of any of these things.

**HATCH** So these were essentially the product? And the navy was similar.

**KIRBY** That's the product. The product in some cases was the worksheet. The worksheet itself with the translation on it was the product, and you turned it over to the Special Branch people. Later you turned it over to the State Department folks who came in here and the various other intelligence users, and this was your record of what had been (B% distributed). (Blocked by Hatch)

**HATCH** If you had more than one person to show it to you, how did you do that? If you sent one of these cards to...you just made copies, or retyped them and made copies and sent them to the State Department and that kind of thing?

**KIRBY** The guy was here. We didn't send them anywhere. They came in and got them.

**HATCH** Oh, he was sitting in the same shop. Okay, you only had one card, and then people would come in and read them and then write their notes and stuff.

**BAKER** By "here," you mean Arlington Hall.

**KIRBY** Yeah. Special Branch got copies of everything, and they were the brokers. At one point they brokered to everybody. And then finally it got to the point that we didn't like the way they were brokering, and so we started a new policy, which was earth-shaking, of going around and taking initial results of stuff ourselves and waving it in people's faces and saying, "Would you be interested in this?" That was an enormous policy change.

**VANDERPOOL** Do you remember when that was?

**KIRBY** 1946. Sure do. I got kicked out of...(cut off by Hatch)

**HATCH** What were you taking? These little cards?

**KIRBY** We were taking...not even the cards. We were taking extracts of stuff because we didn't show any tech data. We didn't show where it came from or anything. Just said, "Would you be interested in this kind of messages?"

**HATCH** So then you were starting to take the tech data out, because there's a lot of tech data in these cards.

**KIRBY** There was no tech data. These cards did for everything. It was a worksheet; it was the record of where it came from; it was the TA record. It's all there.

**HATCH** Okay, everything you needed to know was virtually there.

**KIRBY** You see later, even with the Special Branch, we said we ain't going to give you guys this because they would try to use it and do TA, and they would misinterpret it, and they'd screw things up royally.

**HATCH** Which is how it evolved into the product report which took out the technical data, because they would...(cut off by Kirby)

**KIRBY** Yes, which took the tech data completely out. They would try to use it, and they wouldn't come back and ask, and it would be wrong. So we got tired of answering the dumb questions that came to us based on wrong interpretation of what was being put out.

**VANDERPOOL** Mr. Kirby, when you got a piece of British product like this one here, did you also give that to G2, and the State Department, and these other people?

**KIRBY** No. That was our exchange.

**VANDERPOOL** We got four copies though, so we probably shared them.

**KIRBY** We had copies which we then used bu....now, at a later date we did distribute, but earlier when we got the stuff, that was our...that was the technical exchange, and we used it for our own purposes. The intelligence exchange was directed to an intelligence user from the Brit's, and they didn't like that.

**VANDERPOOL** In other words, the British would have been giving that directly to the G2 as a product.

**KIRBY** Yes. See, we and ASA and all, we did not get involved in negotiations of setting up exchanges and stuff like that; not until 1948. We just didn't. That was done elsewhere by the McCormick's, and people like that. That was all done at a different level by the Chief of Staff Army. Read what happened before the BRUSA Conference of '48 and you'll find...now, Joe Wenger got involved on the navy side. They had a little bit different way of handling things. But still, he did not get involved in the government...(cut off by Vanderpool)

**HATCH** We had a Joint Coordinator for Operations, and you had a Liaison Group. They were all SIGINT'ers.

**KIRBY** The JIC and ANCICC. They didn't do a thing. That was useless. Totally useless. They did nothing. ANCICC and those other things were...they existed, the coordinating groups. That was '45. No, they didn't do a thing. We never even knew they were there. I don't know what they coordinated. They didn't bother us at all.

**BAKER** Just look at all that paper I've got. Well, that's it, see. You're looking at the paper register. There's a paper trail of an ineffective...(cut off by Hatch)

**HATCH** May well be.

**KIRBY** Because I was thinking maybe I might even have a note on one of my sheets of paper about...I'll bet I do. (TR Note: Kirby apparently looking through some papers.) No I don't. No, I know about them, but when we were looking at unification, we studied them

in great detail and how come they weren't worth a blankety blank. I will not ever do that again because they were coordinating groups without any agreement behind them to coordinate. And that was because of Roosevelt. Was only because of things he had done...that he wanted. Remember, he limited who would do SIGINT.

**HATCH** Yeah, and we were trying to get our act together so we could speak with one voice to the Brit's. That was part of the motive for creating the ANCICC.

**KIRBY** Right, but they were there, and they existed as symbols, but that's about what they were.

**HATCH** They weren't as effective. Of course, that's why we came along with AFSA. I'd like you just to quickly take a brief look at this. This was produced by AFSA in '47 and is called "A Traffic Analytic Fusion Air Item." Would this be considered a product or a technical report in your view?

**KIRBY** Technical report.

**HATCH** This would be a technical report. Okay. Not a product per se.

**KIRBY** A technical report because - let me tell you when the things became product - mid 1948. Beginning in 1947 we had started putting together reports involving pulling together a lot of materials. First it was in the TA area, because there we had already convinced people to stay out of our backyard. This was our regime. So we began to put together the reports that correlated what was going on and said this is an air district; they're doing the following...you know, military district.

**HATCH** And it wasn't as sensitive as the cryptanalytic...release a little bit more.

**KIRBY** No, it was not as sensitive initially as that. It was Top Secret. But no. It was not as sensitive, and those reports, nobody argued about. It was not until mid-'48 - and I don't remember the exact date - but I know it was mid-'48 that Olan Adams, and Jake Gurin, and I convinced Frank Rowlett to let us start putting together reports using a lot of messages on a given subject. And that was...(cut off by Hatch)

**HATCH** You started combining messages instead of producing translations on individual...(cut off by Kirby)

**KIRBY** You couldn't produce translations. It didn't mean anything.

**HATCH** Yeah, and you started to start putting several translations together and writing...(cut off by Kirby)

**KIRBY** Right. You didn't even translate. You started putting together the guts of a series of messages which you listed the messages, and you kept them together as the source material, but you analyzed them, and you put out a report.

**HATCH** It was mostly on plaintext, I'll bet you.

**KIRBY** This was plaintext. This is the way it started. It was plaintext. These were the ones that we did on...the only thing we did there was on TA, the externals on the others. But on plain language, on plaintext, we started doing it because we were beginning to get the atomic energy system together with Olan Adams and with the lend-lease information that was down in Washington, and we convinced people that we could put this together.

We had also had a...(laughs) CIA had sent an expert over who wanted us to convert the Russian Cyrillic messages into the English equivalents, and then he found that, hey you know what? It still doesn't read English. And then, I kid you not, this was the greatest joke that we ever had for many years. And he came back and he says, "It still doesn't make any sense." And we said, "It is Russian, and Russian is different from English, like German is different from English. And you must translate it, and we've got the translators. You don't have the translators. And if you want the information, we had better put these things together and give you the information." Now, the initial thing that carried us was the spy-handling stuff, the spy-handlers. The next was the plain language. The atomic energy plus all of the Soviet production stuff which went on for a number of years. You see, I am not a cryptanalyst for cryptanalysis sake. I was a SIGINT'er to keep SIGINT alive, and I believe that any source of information was a valid source of information, and we should use it.

**HATCH**

**KIRBY**

**HATCH**

**KIRBY** We were exploiting a bunch of stuff, and it had dried up, and we were just getting our collection in line on printer which looked like it would be the real, great source of all kinds of material. And also in late '48 we had someone in here who invented the synthetic language for sorting by machine the plain language traffic, which we still use; the same kind of thing (but) much more refined. But now, on the material. Translations were the medium of exchange. The translations were given directly to users, and we had lists of who got what translations. They went directly to the intelligence users. You will find no notations on these of what anything means.

**HATCH** Well, sometimes they had annotations or comments.

**KIRBY** But related to another piece of traffic.

**HATCH** Oh all right. You never referred back to another piece of traffic. You might expand on an abbreviation within that...(cut off by Kirby)

**KIRBY** That's it. That's all. No annotations that were intelligence context because we had people all over us with both feet and clubs. There were many who tried to do that because, after all, we were going to put them out of business if we started doing intelligence interpretation.

**HATCH** We've had that war going on ever since.

**KIRBY** Of course you have. We started it, and you guys will someday finish it. (laughter) But yes, it has been going on ever since. Plain language was the first time we had the right and privilege (B% do not do it) and always reserve to start doing something. Milt Zaslow and some of the guys later tried to actually take encryption and stuff like that and amalgamate that, and believe me, the fight got so intense that I always felt that was a lost cause. I forget. They threw that stuff away and did their own thing anyway. They'd use it as a guide but wouldn't give you any credit for it. To me the rule was if nobody else could do it, and you had to extract the data and put it out in a written and annotated form, you were allowed to do it because nobody else could do it. If anybody else could

come close, it was never going to be your right and privilege. And I believe you'll probably find...I don't even have to look. I can believe that's probably still the situation as long as anybody else has any people.

**HATCH** Okay, that's the only questions I had. Appreciate...I know we were out of sequence.

**BAKER** Yeah, I'd like to step back to...(cut off by Kirby)

**KIRBY** Oh by the way, this goes back a long time. GCHQ basically did the same thing. We turned out translations of ENIGMA, from scrambler. Sometimes if they were important enough, the Prime Minister would call down to Hut-3. Remember Hut-3 was a combination of intelligence guys, and translators. It was not SIGINT translation, per se. It had intelligence people there who were able to make the interpretations and then to pass the information on. So it was a little bit different. Their distribution system was a little bit different from our's - a lot different, I should say.

**BAKER** I want to step back to the times of the invasion, D-Day. While you were at Bletchley, were you ever involved in the teletype traffic with Turing and...(cut off by Kirby)

**KIRBY** You bet. Yeah, that's why I was working over in the Turing area. That's where we exploited the teletype traffic. And I was learning about it because, I told you, I wanted to know how these things worked, and so I figured - it was a big area - that I would like to learn about because it was much different from the ENIGMA, and I wanted to know how this stuff worked.

**BAKER** Did you work with Turing himself?

**KIRBY** No, I saw Turing. I think you'd have had a great deal of trouble with Turing himself. This guy was something else.

**BAKER** (laughing) Didn't really work with anybody. He was in his own little world.

**KIRBY** He was a very unstable guy. My little Scotch professor that I worked with on the stuff from the German ranges was a stable, honest-to-goodness, regular citizen compared to Turing. Turing went off his rocker occasionally, and had to be sent out to be stabilized again. He was called to a mental institution and then brought back to go to work again. And the little girls - the Waves - who worked over there looked for all the signs all the time so that they could try to catch him before he went off the deep end. I'm sure I would not have been able as an ordinary farmboy from Illinois who just happened to have a memory - I could remember everything at that point. I can't any more - But I would not have been able to discourse with him at all. I could with the rest of the people, with Brigg, and all these other folks, Joe Hooper and some of them, but Turing...I'm sure Turing was on a different wave length. I did meet him, and I realized I would not be able to talk much with this man. But he was very brilliant. So what I was learning was how the scramblers worked, what they did, the degree of exploitation (and) the kind of stuff...and by the way, when people stand up and talk about the Hitler messages. They never came out of ENIGMA. Any Hitler messages or any of that came out of the scramblers. They did not come out of...(cut off by Baker)

**BAKER** By scramblers, you mean the teletype that they started sending in...(cut off by Kirby)

**KIRBY** The messages back to the headquarters from Rommel and all, they were in ENIGMA.

But, believe me, stuff coming back from Berlin did not come (B% on the machine).

**BAKER** How did we intercept those? Was it radio?

**KIRBY** Oh yeah, it was radio. Sure, and we intercepted it. It was radioteletype. Where there were radio links you intercepted on the radio, and in the process of doing this, at one point some folks - and I helped do this - got the idea that why don't we use something simpler? I would like to see what the data train looks like taken on a recorder. The only thing you had was "Hellschreibers", so "Hellschreibers" were used, and that's when they discovered that there was leakage in the mixer. If you looked at "Hellschreiber" recordings of certain links, you could see the plain language underneath as spikes. And we did that with the Russians too in the early days.

**BAKER** Okay, you say you were using "Hellschreibers." This was captured equipment?

**KIRBY** It was like "Hellschreibers." Part of what we do is when we captured and talked to the Germans, "Hellschreibers" had been used - oh my - they were used on automatic Morse and stuff like that for I don't know how many years. It's a piece of tape, up and down tapes...(cut off by Baker)

**BAKER** With squiggly lines.

**KIRBY** Right, and if you had leakage, if you intercepted teletype, "Here's one with spikes." Well, something had been mixed with that. "Oh, there's a little spike down here." Something leaked through, and you could guess that that was the plaintext message being mixed with the key generated by the machine, and if it read plain, guess what? You were reading plain language out from under the scrambler. So that much I learned in the process of being over there which was sort of a new thing. Turing would have been far above that. He would not have been the slightest bit interested. All he wanted was his...and they were computers. He was inventing and using computers.

**BAKER** The COLOSSUS.

**KIRBY** Right, which is much different from the BOMBE's which were simply relay-operated multiple-bank machines. Quite a different thing. And we were not ready for computers yet because those dang things didn't work a lot. But the plain language was a great shocker.

**BAKER** Okay, that helped with the exploitation obviously.

**KIRBY** That helped with the exploitation. I don't know how much because I didn't work that closely that much.

**BAKER** Were they in fact exploiting a lot of that traffic, or was it a limited amount?

**KIRBY** Oh, yes. No, don't forget. I don't think we ever went much above five percent total exploitation in any of the stuff.

**BAKER** Even the ENIGMA.

**KIRBY** Right. If you looked at the total traffic, you looked at the message counts and all, we did not exploit a lot. We exploited only certain links on nets, but we also were very careful to look for...this is why traffic analysis and why analysis of product was important. You looked at the ones that produced what you wanted.

**BAKER** So you hoped that five percent was thee important five percent.

**KIRBY** Oh, that would turn out to be reasonably important because it sort of kept track of...when anybody says there was a hundred percent exploitation, forget it. It was not. It was a very small percentage. And that used to be our argument with the budget people. "Oh, you can only get so many percent." Percent means nothing. What's the percent from, is what counts. And after all, of all the traffic on the air we have never intercepted but a small percent.

**BAKER** Right. That's true. It's true today.

**KIRBY** I mean, you try to intercept what's important. And so when I hear people today bemoaning the fact there's all this mass of stuff, and we can't get it, I think, "Fellows, you just gotta get smart, and you have to have somebody telling you or figure out yourself what's important, and then you go after that." If you can do that I still don't believe the numbers mean an awful lot. Because it could be one percent that was important. Of what we read of the KGB traffic...but don't ever figure out the percent. It's so small it would scare you to death, but it produced some very interesting information.

**BAKER** At what point were you selected to participate in the (B% TICOM thing)?

**KIRBY** I'm not sure. I was talking with Paul Neff about that two nights ago. All I know is that I knew German, (and) I was willing to go do anything. I volunteered for things that are not written up anywhere on my record.

**BAKER** A cardinal failure in the military. (laughs)

**KIRBY** I volunteered for joint operations where I was willing to do things that were not anywhere on my job description as a 9600, or whatever the devil I was as a cryptanalyst, along with a couple of other of my British friends. So I don't know. I'm not sure whether I volunteered, or whether our bosses volunteered, and neither is Paul Neff. We were talking about that two nights ago. All I know is that one day I was told you are going to participate, and I was given an explanation of this operation, and I'd been so used to being told what I was going to do that I just said, "Fine. That sounds good to me." But I was very willing to volunteer for an area where other people did not want to go.

**BAKER** And this was early '45?

**KIRBY** Yes, which was up in north Germany, and I was very happy to go into...(cut off by Baker)

**BAKER** Was there some sort of training you got (B% for it)?

**KIRBY** No. An explanation of what the thing was. Now, we were one of the few teams that had a specific list of things to do. They were not SIGINT, all of them. We were to look for the GOLIATH VLF system; we were to look for COURIER, the burst transmission system; we were to look for any German nuclear scientists who might be running around because they'd supposed to have been up in Denmark and Norway and places like that; we were to look for any information that the Germans had on any Soviet equipment that we didn't know about. That was the only one that we were not to ever talk about to anybody. And then there was a specific list of people of interest. We were not to pick them up. We were to find out where they were, if we could. And I find that that is

the only TICOM team that had guidance. The rest of them just were over there looking for stuff. Talking to Neff, that's what he tells me, and I wasn't a member of another team, so I don't know.

**BAKER** And you didn't have any sort of communications with these other teams?

**KIRBY** No. We had communications back to London. We had our own radio operator with us. In fact, what I did in order to help find some of this stuff, two fellows were there from the U.S. Navy as a part of a team like TICOM, up in that area, and they were my former professors of German from the University of Illinois. So I knew both of them real well. We would swap; I could authorize them to use our radio operator and our link back to London, and we could send their messages, and then they would put their messages in the proper navy channels to get them to the guys they were talking to.

**BAKER** But they weren't part of TICOM.

**KIRBY** They were not part of TICOM. They were not part of anything having to do with me. They were part of the U.S. Navy.

**HATCH** TICOM wasn't exclusively army!

**KIRBY** Oh no, no. TICOM was everything. TICOM was SHAPE.

**HATCH** It was multi-service, and navy had it's own thing going.

**KIRBY** It was SHAPE. It was under the SHAPE Headquarters. The navy had a thing going on technical collection, and when I'd find things that I thought were of interest to the navy I'd turn them over to these guys. They were the ones that sent back the one codebook I found - that the Forschungsamt guy had found - sent it back to an address I had that was valid, a navy address in Washington, D.C. And I was going to have trouble getting back and getting this into the TICOM channel, and so I gave it to them to send, and they even got a receipt back over our communications that said that the thing had gotten there.

**BAKER** Where did you enter the comms net? Did you go in at Bremerhaven?

**KIRBY** I'm not sure. No, I think our operator went right back to England.

**BAKER** No, no. When you first got them comms...(cut off by Kirby)

**KIRBY** Oh, I went into Brussels, and then on VE night flew in a Camel up to Flensburg which is where the British Royal Marine Commando - the amphibious assault unit - was located, and joined them there as the single American with the group. I was the only American, and I was also the medical guy.

**HATCH** Because you knew some chemistry, huh?

**KIRBY** No, I knew some medical stuff. You ask did I have any training? I did have one set of training, if you're interested. And so I became...what do you call the guys that go around today in ambulances and all?

**HATCH** Paramedic?

**KIRBY** I became the paramedic. I became like a paramedic. Once again, it's not on my record, but I was.

**HATCH** How many on the team?

**KIRBY** The team was composed...there were two British officers (cut off by Baker)

**BAKER** Theses were Royal Marines?

**KIRBY** Yes. There were no career officers or men of any kind in that unit, because this was a unit that violated boundaries right and left depending on their assignments. They did not want any career personnel who would go into an area and raise cane and later, as a part of their career, be confronted by a colonel or somebody who'd been the guy that they went into his area and messed things up, and he'd know about it. So there was no career officers. The team was about...there was about 16 enlisted men and three of us who were officers. Remember, this was still part of an AAU, and they never changed it.

**HATCH** AAU?

**KIRBY** Amphibious Assault Unit.

**HATCH** How would you proceed? If you were looking for some general...you had a list of people you were looking for, how would you look for them?

**KIRBY** That was left up to you. Free reign. I'd go into the closest British headquarters, and after they decided not to kick me out because I was an American in the wrong area, and they would recognize the thing from SHAPE Headquarters that said that TICOM was something valid that they knew nothing about, but they would check and find that, okay, they shouldn't send me back to the American zone, then I could start asking people about...did anybody know where there were German prisoners from...and I had a list of units.

**HATCH** I assume you had a list of German field stations which you knew were COMINT centers.

**KIRBY** Oh, I knew them by heart.

**HATCH** You knew that. So then you would be going to those places and people who worked...(cut off by Kirby)

**KIRBY** No. I was looking for people.

**HATCH** The people who worked there?

**KIRBY** I figured those stations were long since gone. There would be no interest whatsoever in those stations. And so that's not what I looked for. I looked for supply dumps; I looked for supply centers, but I looked for prisoners and where were their high-level prisoners? I mean majors and above. Guess what! Every Schloss in Germany is what Paul Neff was telling me last night. They found them down south too. They were in the castle, and it was a prison. Schloss Glucksburg, up north, was British 8th Army, and they had high-level people from Forschungsamt, OKW, Luftwaffe; all of the folks who were pretty high-level were in those places. Dr. Huettenhein, who some of you have had - NSA's had dealings with - who became the head COMSEC guy in Germany, was a prisoner in Schloss Glucksburg. I bailed him out, put him in an inn in town, and I had the authority to do that. I signed for these guys as prisoners, bailed them out, took them away from the prison where they were subject to interface with "200 percenters" who felt that any-

body talking to a British or an American was a traitor. And we had a number of quote, suicides that we weren't sure were suicides. And also this place had a lot of amputees. Flensburg was a center for people who had lost one or both legs, arms and things like that. And that inn had tents and all behind it. There were a lot of amputees there. There was good food and no rabid Nazi folks there. But I bailed these people out, put them in the inn to get them away from the Schloss and kept the receipt on them, and then when I bailed out another guy I'd take these and dig up some other stuff to get him away from the Forschungsamt, which is Goebbel's unit and was a research unit. I did not put him back in the Schloss, because he said he couldn't talk to me unless I could guarantee him he would not have to go back, because they might do him bodily harm if he went back. When I left Germany, I went south and I found Dr. Huettenhein's family for him. I already had gotten my message which said return to "Uncle, Sugar, Able" as soon as you can arrange it. That was my orders. And I went south and found the family, and then later on when we began to get into U.S. German work and in fact at E Systems where we did the (B% BESPEAK) problem, Huettenhein and these people were...I already knew them all. They were all my friends and guys in various places.

**BAKER** Did you ever swap tales about this time with Howard Barlow? I think he had a similar experience.

**KIRBY** Yes, and I went back about 5 years ago. I took the chit from British 8th Army, and I delivered it to Dr. Huettenhein and told him he was no longer my prisoner. And he framed it and put it on his wall. But I delivered it back to him.

**VANDERPOOL** Did the TICOM mission predominantly have a Russian flavor to it?

**KIRBY** No. As much German as anything else. We were looking for German radar; we were looking for German radio collection equipment, transmission equipment, but one of the big things was radars and anything else in the way of new types of transmission systems. The very low frequency was submarine, and the COURIER which was submarine. The reason we did it up north was because the submarine base is at Kiel, and the GOLIATH was just out of Kiel over across in the Russian zone, the transmitter itself. This was the one that broadcast in part into the ground.

**VANDERPOOL** Do you know who levied these requirements on you?

**KIRBY** I have no idea. They came from SHAPE Headquarters. I'm sure there was a scientific group there that had a bunch of scientific requirements. But we didn't get all of them. A lot of those would go to like the navy team. If it was navy gear having to do with something like (B% ASDIC) sonar, or something like that, I'm sure that they would get that. Propulsion systems, we didn't get anything on that.

**VANDERPOOL** I wonder where this Russian requirement came from?

**KIRBY** Oh, the Russian requirement. There was a heavy requirement. It was there behind everything.

**VANDERPOOL** It was included, but it wasn't exclusive.

**KIRBY** It was included, but it was not exclusive.

**VANDERPOOL** But I wonder where that came from? Who generated that?

**KIRBY** No idea, except I already knew they were collecting Russian stuff so I wasn't surprised.

**VANDERPOOL** Why?

**KIRBY** I mean, you expected it. I didn't have much interest in it. I didn't know that much about it.

**HATCH** The Russians...we were allies. Why were you...(cut off by Baker)

**BAKER** You gotta remember there's a...their close association with the British, and the British never trusted the Russians.

**HATCH** I know. I'm just trying to make a little sense of that.

**KIRBY** Oh, the Russians were our allies.

**HATCH** Did you feel you didn't trust the Russians, or they were the next set of bad guys? You didn't feel that at the time?

**KIRBY** No, I didn't. I had had no contact with the Russians except at one point in Minden, Germany. While I was still at Bletchley, we had read a couple of messages when major German headquarters up in that area were folding up. One of them I remembered very well because, you see, I didn't always have to wait for Hut-3 to translate the messages. I read the ones I was interested in myself. I had read a message which said that a headquarters had a "Bahn" something. I swear to this day I can't remember what it was. When it folded up they had put a lot of records and all...and these were records of Russian agents' stuff that they had...what was it, the "Red Church?" Well anyway, they...(cut off by Hatch)

**HATCH** "Red Orchestra."

**KIRBY** Okay, they had..."Rot Kapella" is what they called it. They had read a lot of stuff. This was a group that was doing that, and they had put all this stuff in tins, sealed and wrapped, waterproofed and put down a well. Okay, well remember, we had the authority to do a whole bunch of things, and you never asked a question because you might not get the answer you wanted. So the left lieutenant and I decided we would go into the Russian zone. He spoke Russian. We had a driver who was Polish, and he spoke enough Russian, and we'd be fine. We decided we would go into the Russian zone, and it wasn't too far down to this place, and we would go down there and see if we could pick that up. We understood the Russians were really not much in that area. They were...and our intelligence was all wrong. They were all through there. The minute we crossed the border our friendly Russian allies greeted us, and man, they escorted us every foot of the way. So we very quickly decided we would go to another place where we would tell them that what we were wondering about - it was a place that had a small airbase - that we understood that they had some strange, new types of helicopters. I forget what the lie was. So we went there. We did not go to the place we intended.

**HATCH** You didn't want the Russians to know you were going after...(cut off by Kirby)

**KIRBY** They were with us every inch of the way. They escorted us back to the border. When we got back to the border they liked to took our weapons carrier apart. At that point I decided these are not really very friendly guys. They took it apart, and they had been with us every inch of the way. But they were convinced somehow or other we must

have picked something up, and we were hiding something. They made us lay out everything in our duffle bags; everything. They searched everything.

**BAKER** So all this material is probably still down a well someplace.

**KIRBY** Now, somebody has asked, "Do you remember?" I don't remember where it is. I truly have forgotten because...but this made me decide this was a dumb idea. Then we realized we were in the Russian zone. Nobody really knew where we were when you got right down to it. If they never let us go back nobody would ever know what the devil happened. So this was not a good idea.

**VANDERPOOL** Did you actually talk to some of the Germans who had been intercepting the Russian communications?

**KIRBY** Yes I did. I talked to one. Oh, I talked to several. Colonel (B% Keppler) was one. You'll find him...we interrogated him on a lot of things. But he didn't know much. He'd been an administrative officer, a colonel in charge of some of the intercept units and communications units that had worked...but we talked to some of his people. He told us who the various people were who had worked on Hungarian, who had worked on Yugoslav, and worked on Polish - the guys who were against them - who had worked on Russian operational stuff, the tanks and the army, the troops. And then I found this one gem from Forschungsamt who had worked on the NKVD and the - what do you call it, the (B% Augku)? - the guys that surveilled the troops. And basically that's where the normal stuff came from; they had picked up from Petsamo.

**VANDERPOOL** That's where you got the crypto system then.

**KIRBY** Yeah, that's where we got their system. In fact, it wasn't until Lou Benson mentioned the name Petsamo a couple years ago. It never occurred to me I had knew anything about any of that. I didn't know I had picked that up. But when he said that, that rang a bell. Yeah, I had gone to this fellow, and he was the only one that would talk to me. And he said they had been using some of this stuff and that the books and all they brought north with them, and he could take me to where they had their cache. He thought there was traffic and there was a codebook. Well I figured, gee, a codebook. I didn't find many neat things like that. Really, you found lots of junk. But all the places you went, if you went to a station it was a shambles. Most of the stations either the Germans and all had been through it, or in that area the displaced persons: the Czechs, the Russians, and the Poles who were DP's had been through every place. Anything they couldn't use they tore up. In fact, they'd shoot at you too. It was very bad to be around them, because they thought you were coming to run them up, and they did not want to go back home. They all said they were going to be killed. It turned out later, they were probably right.

**BAKER** There were a lot of armed DP's?

**KIRBY** Oh man. All over the place. Yeah, see, they were all turned loose.

**BAKER** So this is not a part of (1G)?

**KIRBY** Oh, they were all turned loose. There were DP's running all over the place. The British were starting to round them up because they were going to send them back. And both the DP's and the captured Soviet soldiers said that their families had been put in prison,

or sent to Siberia, or killed, and they would be killed because anyone who had been outside the USSR, and if you were a Soviet and taken prisoner, you were done for.

**BAKER** Okay, so the Russian troops expected to...(cut off by Hatch)

**HATCH** They did not want to go back to Russia.

**KIRBY** They did not want to go back to Russia, and the DP's said, "Hey, the fact that we've been outside Russia and in a zone which is British or American, they will send us to a prison camp, or they'll kill us when we go back." So they had every reason, and they had picked up...oh, you would run into munition dumps and all, and there were guns. There were all sorts of things available if you really wanted them. Yes, our biggest problem was...we got a bullet right through the windshield of our jeep, between the British lieutenant and myself one time driving out to a place, and somebody took a shot at us. Luckily they weren't good...but they were a pretty good shot.

**HATCH** Either very good or very poor.

**BAKER** If that was a warning it was very good.

**KIRBY** Whatever happened, we did not complete our mission that day. We turned around. Now, you asked (about) the method of operation. The method of operation was first to find the people in the various prison camps and all. That was a very good source. The next thing was to find installations. If you could find installations like the dumps and all, you would look for addresses and things like that. Then when you found people, they would tell you where things had happened. For instance, on the navy very low frequency and on the COURIER up in Flensburg a navy enlisted man who had used the burst - the COURIER, that magnetic thing on a wheel that they ran by a reading head - he said he had been on PT boats that were using that and that one guy who was...and in fact, he invented it for the PT boats, not the submarine. They did too. But that the man who knew a lot about that was now a guard and sort of a caretaker at the navy munition dump in Flensburg, and we should go there and talk to him. I went there in a jeep, and at that time they were unloading sea mines from a German minelayer, and they dropped one and the entire dump blew up and killed the guy I was supposed to talk to and blew my jeep off the road into the ditch, which was the luckiest thing that happened, and then it burned. And the "Patria," the ship we were staying on, was being shelled by exploding shells that were lobbing stuff. Oh, it was a beautiful fireworks display. So that was the major war damage that Flensburg suffered. Another time was a MOSQUITO when he was going back hadn't expended all of his canons, 20-millimeter ammunition, and shot up a church steeple as he flew over. That was basically it. But it blew up the entire dump, and so I never talked to this gent. Later the man who was in charge of the German Navy SIGINT organization in north Germany...we were over there and I met him, and he was the guy I was looking for who had helped invent and apply COURIER to the submarines. But he was a PT boat man, and he said they did invent it for PT boats - the burst transmissions.

**BAKER** So how long were you engaged in TICOM activity?

**KIRBY** From about May...not long. Just a couple three months. From late April probably of '45 until officially I got my authorization to return to the States. I did look this up. I did find the laundry slip or whatever I wrote that important information on. At the end of July of

'45, and I returned to the States actually at the end of July of '45. I flew. I wrote my orders to get me down into the American zone, and they accepted my handwritten orders (and) British authorization with my message which said I could return...I was American Army, and I could return to USA. They accepted that at the airdrome in...I forget but it was in Germany, maybe Frankfurt. I don't know. One of those places, and I flew back to the States in an airplane, the northern route, of course.

**HATCH** Why were you pulled out so precipitously? You say you got the orders to return to Uncle-Sugar-Able. Why was that?

**KIRBY** Basically, what we had said was we've done all...I wrote one back to England which said, "Hey, we've sent you all the stuff we can send you. This is getting to be repetitious. I can send you a carload of crypto gear. You've already got half a carload. I can send you more instructions. I found the ENIGMA (B% Uhr) (TR Note: German for clock.) We've sent you that. We've found all kinds of code and cipher instructions for other countries. We've interrogated these various people. I don't think there's anything else we can do." So we suggested our usefulness is over here. And that was my feeling that it was over. Besides that, I wanted to get the heck out of there. But then I did receive a message back which said you are authorized to return to the USA. I was to come back and stop near Bletchley, at the little (B% brick hill), and then I would get my further orders. Basically that's what I did. I stopped at little (B% brick hill), but I knew that they still accepted my British orders. They didn't write me new ones. They may have; I don't remember. But then I went into London and from London to someplace else, and that's where I caught the airplane to go back to the States.

**BAKER** This whole time while you were involved in TICOM, were you actually detached from the 6813th? (Yes.) So you had to come back through and process out.

**KIRBY** Yes. I was assigned to the British Royal Commando Unit

**BAKER** But you were still actually a member of the 6813th ?

**KIRBY** Yeah. Just like when I was here at NSA I worked for CIA and the State Department several times. I was seconded to them, and I got their per diem. That was nice. I wished they'd do that all the time. Our per diem here at NSA is pretty chintzy compared to CIA's special per diem. I was anxious to do that any time I could find the excuse.

**VANDERPOOL** Mr. Kirby, I'd like to return to this Comintern Moscow-Chinese stuff. Here are some of those British translations that I referred to earlier. I got those from Lou Benson. He gave them to me.

**KIRBY** Oh yeah. These began in '44 and ran up through, what? 47?

**VANDERPOOL** Yes sir. Well, actually, this series here ends in '46, but the State Department evidently got some dated 1947, and they're not in this collection.

**KIRBY** Yeah, they ran through '47. That's why I said '47.

**VANDERPOOL** Yeah, you sure did. I wonder where they came from? Would they have come direct from the British also?

**KIRBY** Yeah. Don't forget now, the British organization...if you look at it you'll find that during war time the Foreign Office really kind of took over the exploitation because that's

where the GCHQ organization sort of fell under that, but there were still several intelligence organizations in the British government. And one of them was another Foreign Office, diplomatic. They were the ones that were handling this stuff.

**VANDERPOOL** And what was their title? Do you remember?

**KIRBY** God Almighty. I don't know, but it's in one of the books that's been written about it. It's in that sort of lousy book - it's just come out - about the deals prior to...wait a minute. I'll tell you what it is.

**HATCH** Smith book?

**KIRBY** Smith! Yes.

**HATCH** "The ULTRA Magic Deals."

**KIRBY** Deals; that's right. Okay, and they mentioned the one thing that he's correct about. There's not many other things he is. One thing he's correct about - and there were some things that obviously came from NSA influence; that was correct - is that he lists the various intelligence organizations and the internecine warfare that went on. It was one of those other intelligence organizations that handled this agent stuff, rather than military intelligence, which became the big thing during the war. But there was another British intelligence handling organization. I don't remember now what they called. I should, but I don't remember.

**VANDERPOOL** I've seen references in this...actually it's another batch of material I didn't bring with me. I left it in the office. It's like handwritten logs by this man Scott, who produces stuff for us. He refers to a meeting at Barnet (spelled). Does that ring a bell?

**KIRBY** That's probably one of the stations. Barnet does ring a bell. I've heard it, but I don't remember where it is.

**VANDERPOOL** That wouldn't have been an RSS station...(blocked by Kirby)

**KIRBY** It could very well have been. It sounds to me like it was a station. Remember my problem is that's just about 50 years ago, and I find my memory does have holes in it, especially in the things that I was not - well, let me be honest - not truly terribly interested in. I sort of remember almost everything having to do with details. You ask me how you write out a menu for a crib. Man, I can do that today; split, or (B% sillies, or sib's). I remember all those things, but I don't remember some of these others.

**VANDERPOOL** So those translations there would have come to the British G2, or would they have come to you folks in ASA?

**KIRBY** We got some of this stuff long after it had been exchanged with somebody over on this side.

**VANDERPOOL** After it had been exchanged. They said they sent over a batch of this material in 1953, but before then, of course, this had already been distributed.

**KIRBY** They had already been using this stuff with whoever they had a deal with over here, and we were not part of it at that point, really.

**VANDERPOOL** That's an important point.

**KIRBY** We were not part of it. We knew in the 40's; we knew about this stuff. That's the Duberstein memo. We picked it up in some of the early discussions when we were talking to people about would you like this? And somebody showed us, and I said, "We'd like some more of this." That's how we found out about part of it. Then as a result of inquires, it was sent to us. Now, if you ask me of the channel, who sent it to us and all? I'm damned if I know.

**VANDERPOOL** There sure seems to be a lot of interest in that. I suppose that's because of General Marshall's mission to China.

**KIRBY** Let me tell you. After I got back here in '45, and I knew about the Soviet program. I was interested in anything having to do with the Soviets (and) with anything communist. So that's why we went to work on the Russian [redacted] in the interior areas where they were having contact with Chinese irregulars of various sorts. And so we put our own priority on that, and we started working on that. Also, it was problem some of us already knew about. We knew how to [redacted]

**VANDERPOOL** Why?

**KIRBY** (laughing) (1G) had a little...

**VANDERPOOL** Well sir, on this material, the Russian [redacted] you talked about, whatever that was, was there anything you had on this Moscow-Chinese relationship, Chinese irregulars, guerrillas, that later turned into (B% communists)? (cut off by Kirby)

**KIRBY** This was strictly operational stuff, like from lower-level units out there reporting back, and so there was not...it was simply the order to round the stuff up...was being relayed.

**VANDERPOOL** Turn it over to the communists.

**KIRBY** That's right. That was very clear. We had to work weekends when that thing came to light. That's while Waldo was still here, and I was running that particular program.

**VANDERPOOL** Yes sir. How did these customers - The State Department and other customers - react to that kind of reporting? What did they think of it?

**KIRBY** To this stuff?

**VANDERPOOL** Yes sir, on this other...(cut off by Kirby)

**KIRBY** To the [redacted] they reacted like everything else. They got the messages. We told them they could ask questions about where they came from and so forth. So they received the cards and translations just like everybody else did on that, (2G) we turned them out. And if we had partial messages...we would get sometimes a mission laid on us to produce even scraps or parts of stuff, so we assumed they had something else, like this.

**VANDERPOOL** There was a lot of interest in it then.

**KIRBY** Oh yes there was, of course. The big, political upheaval was happening, and they knew that Nationalist China was about to get its tail whipped, and there was going to be a big turnover. I mean, you bet there was a tremendous interest. So that was one that we just had to look at the newspapers to know we had a lot of interest in that, anything we could produce. And we did not have much. That [redacted] was the major thing that I recall...ah, plain language. Now plain language was...but that had to do with...(cut off by

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Hatch)

**HATCH** But that evolved a little later though in '47.

**VANDERPOOL** But the [redacted] stuff, that was related to the Chinese.

**KIRBY** Yeah, but on the commercial...we had changed some of our priorities, and we were getting a lot of Far East traffic at that time, but our method of processing was pretty slow. But that had a very high priority, particularly in terms of commercial shipment and transfer, and there was a lot of military stuff even in the plain language. That had picked up a very, very high priority at that point.

**VANDERPOOL** The atomic energy...(cut off by Kirby)

**KIRBY** There wasn't any atomic energy. It was actually a lower level; military equipment and such which was being lined up to go to the Chinese. That didn't happen until a fair amount later, but we were doing pretty well. 1947 is when we had our big push on picking up linguists, and that's when we found Olan Adams and those people in that OSS unit downtown. At that point we had a lot more than we knew how to handle. After those guys got here then we had this one, specific high-priority was the military activity in the Far East MD and with the Chinese.

**BAKER** So you started about when, 1947?

**KIRBY** Yes.

**VANDERPOOL** But this material here, you never knew that that was getting to any U.S. customer, kind of like from the British...one technician...analyst-to-analyst kind of thing.

**KIRBY** Not until later. That's right.

**VANDERPOOL** This is very interesting stuff. It shows a high-level relationship between Moscow on the one hand and, of course, the Chinese Communist Party in the north. But it showed that the Chinese Communist (Party) was a strong, confident, well-funded by Moscow, extremely...(cut off by Kirby)

**KIRBY** That's right. Plain language showed that. The plain language stuff showed that there was a very, very vigorous exchange of stuff, and also somehow or other the Chinese were paying for a bunch of stuff.

**VANDERPOOL** They were. That's right.

**KIRBY** They were paying for it.

**BAKER** Paying the Russians or buying it on the open market?

**KIRBY** Yeah, paying the Russians. But also the other thing that came out, and this later came up from my uncle who had been over there as a missionary...(cut off by Baker)

**BAKER** So they finally found him, huh?

**KIRBY** Yeah, they found him. That's when he got returned. But he had watched the local military and mayors taking American aid stuff and selling it to the Chinese Communists, to the guerrillas, everywhere, whatever it was; trucks, anything; selling all this stuff to the anti-nationalist forces.

**HATCH** It was supposed to go to the nationalists, but the...(cut off by Kirby)

**KIRBY** The nationalists were selling it.

**HATCH** Oh, and the nationalists would sell it to the communists!

**KIRBY** They were selling it. They'd receive the stuff. They were nationalists. I'm sure at that point they decided to join the winning side.

**BAKER** Everybody had their own operation.

**KIRBY** But they were selling the stuff. He appeared before congress here in the States and testified about that after they finally got him back. But anyway, a lot of things like that. Now, we did not get a details. We simply got the Russian shipments of a lot of stuff to the Chinese and the fact that they were paying for it.

**VANDERPOOL** Sir, do you believe that this material here was considered compartmented? (Yes) This is very hush-hush, this...(cut off by Kirby)

**KIRBY** Yeah, it was considered compartmented. It was also considered to be agent-like, and therefore not to have to fall under existing agreements for exchange. Now, we got it before the UKUSA started, but there was a series of things that happened that told us this material was there. That's why you saw Waldo's memo, because we did finally get a batch of the stuff, and it dated back and it went on up to '47 too.

**VANDERPOOL** Do you recall seeing anything from the thirties?

**KIRBY** I don't recall. No. All the stuff I recall...I knew that it had gone back to the thirties.

**VANDERPOOL** Right.

**KIRBY** How I know that, I don't know. But I knew that.

**VANDERPOOL** You don't recall seeing the messages?

**KIRBY** I never saw messages. There may have been some even, but I never saw them.

**VANDERPOOL** In one of these Manson memo's that he wrote back here, he said that he was aware that the British...I think he said (B% Josca) had been handing this material to Colonel Clarke.

**KIRBY** That's right.

**VANDERPOOL** Actually he gave it to Admiral Stone who got it to Colonel Clarke. Now, when that began, it doesn't say, but he wrote that memo in 1946, so it must have been for some time.

**KIRBY** Carter Clarke was the broker for anything. Carter Clarke did things that you will never find out about that would surprise the devil out of you, and would me because I worked very closely with him for a long time. And whenever he would feel it was to his advantage to bring you in on something he would do it. But when someone asked me, Lou Benson, how come ASA started working on the Russian, it was because of Carter Clarke. And they knew a lot about Russian agents in this country; a bunch. And when they first saw the messages from Meredith Brooks and stuff about 1947, they knew exactly that these were agents, and these were the agent covernames. They even knew a couple of covernames. Nobody ever told us how, why, or anything else. To this

day I don't know.

**VANDERPOOL** They had to have been keeping a book on all that.

**KIRBY** But they knew what it was, and they said this is great stuff.

**VANDERPOOL** It's interesting that you mention that because Mr. Duberstein's memo does say...and I saw the one you wrote, but anyway, it does say that we from the G2 Special Branch just received a translation, and it refers to this kind of stuff here. So that was one of those things that triggered you all to start asking questions about this.

**KIRBY** That's right, but we were supposed to. At that point...you ask how did we do TICOM stuff? You did it. At that point Carter Clarke said, "Now, go after this." I don't know what "go after it" meant. But we knew where it had to come from, and we started going after it. Eventually we did get the stuff, but we did get...yeah, but I didn't know anybody had ever said where it came from. I didn't see that part. I don't remember. Maybe we did.

**VANDERPOOL** Well, let me make sure that I'm remembering correctly, but...

**KIRBY** I'll tell you this. I would know it came from Carter Clarke. Everything we got in those early days, if it was guidance of any kind, all came from Carter Clarke.

**VANDERPOOL** Well, actually it doesn't say Carter...here's this memo, by the way, from Mr...(TR Note: does not finish sentence as he hands the memo to Kirby)

**KIRBY** Okay. I couldn't remember the other name. (B% Book)-47. That's what it was after that.

**VANDERPOOL** About half way down the page it says they got a translation from MID. I don't know where that...I said Carter Clarke. I'm not sure that that would have been him or not.

**HATCH** He was the chief at that point.

**KIRBY** Yeah, that would have been him. Yeah. (TR Note: reading from the memo): Routed through LSIC; routed through MID, to (B% Dick) Hayes. Right. (TR Note: period of silence here while Kirby looks at memo) Yeah, okay. Well, this is the stuff all right. And yeah, that was to Carter Clarke. I remember this pretty well. And Larry (B% Sheehan) was brought in, right? Yeah, yeah.

**BAKER** You said (B% Larry) (1G)?

**KIRBY** Yeah. Larry was on the navy side, and I was with Waldo over on the ASA side when we were first starting up with the two units, and we were just beginning to realize you had to collaborate on something. And really, the navy was totally out of the mission because the army had done some of the stuff.

**HATCH** As long as we're on the subject of Carter Clarke, could I ask an off-the-wall question about him? There are some people here who believe without any documentation to prove it, and there's probably no documentation anywhere that would prove it, but they believe that he was surreptitiously feeding information about Soviet agents, or about communist influence to some of the famous anticommunist senators who were conducting investigations. Do you know anything about that?

**KIRBY** Now, will you tell me again so I can listen real good.

**HATCH** There are some folks who believe without any hard evidence that Carter Clarke was

surreptitiously feeding information, or tidbits, about Soviet agents or Soviet influence to some of these senators who were conducting their anticommunist campaigns. Can you shed any light on that? You said he did surprising things.

**KIRBY** Well, let's put it this way. That's all I can tell you. There were certain of the senators and political people who held the proper clearances. They were briefed in private on as much of the material as would be of interest to them, but which would convince them about what was going on, because at that time the State Department and the Secretary of State was totally convinced that the Russians, because the President had said they are our glorious allies, and from certain offices in the State Department anyone talking about Soviet espionage and all was threatened with losing their heads. So there was a campaign to properly educate those who needed to know, and they were cleared verbally and no questions were asked. And somebody went around and briefed them in great detail on the parts that had been decided they should know about in order to convince them that this was a real thing in our own backyard. So I will tell you this, that the answer is it wasn't surreptitious. It was simply done with great secrecy, with great selectivity, and at that time was totally legal, and it did happen. And I briefed them.

**BAKER** Okay, so we're talking in the Truman years.

**HATCH** Would this include Senator McCarthy, by any chance?

**KIRBY** (B% Can't tell you. I don't know.)

**BAKER** Was he always viewed as dangerous?

**KIRBY** By these guys (he) was seen as wild, and crazy, and dangerous, and untrustworthy, and a climber, and not even a patriot.

**BAKER** Would not have been one of those cleared.

**KIRBY** No, I assure you. Somebody else might have briefed him. I didn't.

**VANDERPOOL** Were these senators from both parties?

**KIRBY** You bet. Believe me, this was above politics. This had nothing to do with politics. This had to do with who needs to know about certain things for good. Now, let me point out one thing, and Lou Benson has heard this. The guy in charge of making specific decisions, the fall guy for the political and policy decisions was Chief of Staff Omar Bradley. He in effect made the decisions. Very few things were written because it was not a good idea to write things down, but you received verbal instructions which were like gold, and you then went and did them. I used to be called at any hour and told tomorrow you are going to go, and it wasn't always just senators and all; there were some other folks who also were briefed. You were told this has been approved. You will go see so-and-so at six o'clock tomorrow morning, or twelve o'clock tomorrow night in their home or wherever it was, and you will brief them on the following things and report back to me when you've done this.

**VANDERPOOL** Were any of the briefs, sir, on this material here, this Moscow-Yidun stuff?

**KIRBY** No. This was strictly what was happening in our own backyard, the espionage. Now, somebody else may have done it. I know nothing about that. I did not. When we found out about this material we found out about the like-materials. I was looking to see if you

have it, and you've got it in here, of the Polish stuff that was...but see, this had started way back where the Russians had folks who had infiltrated these various places were working with them, and the guys who had been taken over didn't even know they had been taken over, but they were all part of the network.

**VANDERPOOL** Well sir, what I don't quite understand from actually working on this material here, is this.

**KIRBY** I'll come clean in a minute and tell you something. I've been thinking about it. Okay, we had very good information that the LSIC had as a matter of policy decided that we should not get this stuff. We knew that. We knew that that had happened. That's all right. We had some stuff we didn't tell them about, that to this day we may not have told them about. So that was not a bad thing. It wasn't until there was mutual advantage. It was totally understood, but this stuff was not considered to be something that was exchangeable at all. The fact that it eventually leaked out on the intelligence side...and otherwise I think that even the intelligence exchange was because of accidental revelation. So I can't tell you when it started.

**VANDERPOOL** Do you have any idea why the British didn't want to do that?

**KIRBY** Yeah, I can tell you why. The British had at one point been dealing with the Chinese. They had also been dealing with the Russians. They had also been dealing with Japan. After all, they were the imperial power in that part of the world. The general feeling was the damned Americans had no business knowing anything about this. And any of these things that had to do with...remember, this was the propaganda exchanges; this was a bunch of stuff that again, even when we knew about it, it was the kind of thing you would expect of an ambassadorial type, or an intelligence type, and it was a whole mixture of things. Remember, I've not even looked at the traffic. I remember basically, and it related to some other things in other areas. But they just figured it was none of our business, and we had no need to know about it. Very truthfully, I don't know who in this country had a vast interest in it when we finally got it. It took us a long time to find anybody who had an interest in the agent stuff. It wasn't until Bob Lamphere came along in about '47, and the stuff had been laying on the shelf at FBI and some other places for a year or year and a half, and nobody except Carter Clarke had said, "This is great stuff. We gotta do something with it." But nobody did anything with it. So to me this was just the fact that, okay, we were beginning to look at agent stuff. And we really were, but we knew from something that happened...remember I've lived with Josh Cooper and all these folks for a long time, and I felt that I could go confront them directly on anything I wanted to. And if they felt that honest-to-God they couldn't tell me, they'd tell me that, and I'd drop it right there. Otherwise I would say, "You know, I will understand this, but somebody else is going to cause us all kinds of troubles if you do this." But we knew that LSIC had said we're not going to exchange this stuff. This says this in one of the memo's. It says this in the memo that was written. I think you'll find that it does say that we knew...it says, "there was evidence that." There wasn't evidence that...(cut off by Baker)

**BAKER** Would somebody expand LSIC?

**HATCH** It was GCHQ. It was just a covername for it. London Signals Intelligence Center used

during the late '40's.

**KIRBY** It became GCHQ. Right. Let me see now.

**HATCH** It was kind of an interim name between LSIC to GCHQ.

**VANDERPOOL** You made the comment that you think that the British had been deliberately withholding...it's on the last page, I think.

**KIRBY** Yeah, this is the last paragraph.

**VANDERPOOL** Why?

**KIRBY** (reading from memo): "There's a definite attempt to find out (1G) if that material is being sent to ASA." That's right. You notice also where it says it was sent? To ASA.

**VANDERPOOL** Oh, okay.

**KIRBY** This is before the formal agreement that had us have a signals...(cut off by Vanderpool)

**VANDERPOOL** So the navy wasn't a part of this.

**KIRBY** The navy was not a part of it.

**BAKER** Let me flip the tape. (TR Note: period of silence here)

**KIRBY** Let me point out one thing, and I'll apologize, but I still think about some of these things a little longer than you might expect, because I'm still sorting out what are the things that are or are not going to get folks into trouble even at this late date. Remember, we operated on a very simple principle. The rule of operations was this: you never do anything which is illegal because of law, because of a policy which is a written and promulgated policy, or a verbal policy which has been sent directly to you. But if it is not illegal according to any of those things, you go ahead and do it but you don't get caught. That's it.

**BAKER** Didn't you all have a sense that you might be doing something illegal?

**KIRBY** Oh no, we had a sense which is very simple. That the law didn't cover these things, and that some weenie would decide to make a landmark case, and we'd be it. And therefore you did not get caught.

**BAKER** You were in that grey area that you could become illegal eventually.

**KIRBY** It was totally a grey area.

**VANDERPOOL** We all face that in our careers here.

**KIRBY** Right. That's exactly right. That you could cross the line at any time. And sometimes I still think about these things, and it says that there are some notations about things that I think might be very interesting, but as long as the principles involved are still around, and as long as I have a question as to what somebody could make of it, it ain't what it is unless somebody can make it to be, then I have reservations about what do I say about this particular thing. That's why it took me a while to figure out what we did. Okay, the sixty-four-thousand dollar question.

**VANDERPOOL** Well, it's going to take me a while to ask it. It seems to me that what this material represents...I shouldn't say "it seems to me." What this material does represent is a very

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small subset of what Mr. Scott referred to as an enormous network. And the network itself - bear with me just as long as it...and if you hear anything that you disagree with, please say so.

Asian power, right? Here comes the sixty-four-thousand dollar question finally: Did anybody separate that out and say, "Hey, we've got to worry about these Chinese Communists because it looks like they are a strong, developing power, and they have these strong ties with Moscow, and this proves it." Was anybody saying or talking about that sort of stuff, or did they still think of this as a sort of secrety, Moscow (1G) of agents?

**KIRBY** No, no. Let me tell why...it was not because of this that people had that conclusion. It was because of everything that was available. But it was known that Chiang Kai Shek was on the decline and had lost everything at that point, and that the other people were taking over. That was an accepted fact. The question was how and when, and all of the support which you saw everywhere from the Soviets, and the Soviets were the major power behind providing the wherewithal for the Chinese Communists to take over.

**HATCH** How early?

**KIRBY** This was beginning in about...the earliest plain language we got when we transcribed undulator tape showed that the Soviets were taking lend-lease factories and shipping them to the Chinese Communists to get them set up when they took over areas in Manchuria. When they took over; they haven't taken them over yet. When they took them over, according to...and some of the guys felt there must be a timetable here.

**HATCH** Oh, because the Soviets were planning in advance of the takeover. This factory will go there when they take over.

**KIRBY** But when you look at the map you say, "Hey, they're not there yet." And yet this is where the shipment was destined.

**BAKER** So this could be as early as what, '46?

**KIRBY** Yes, it was when we started...we did not have the 2-, 6-, and 9-channel baudot stuff yet, so we were training people to learn Cyrillic, because we converted them from Japanese by transcribing undulator tapes - "hellschreiber" tapes - of the 2-, 6- and 9-channel. And what Olan Adams found was some pure gold stuff. If we had had it, it contained wondrous things, but there were occasional messages having to do with the support to the

Chinese Communists, and it was actually the utilization of American lend-lease as part of the support then going to the Chinese. Now, we didn't make a big deal about that because we talked to British people about it, and they nodded their heads, and they thought that was great. And we gave them what we had, which was spotty messages. When you think of the billions of rolls of undulator tape we had, we didn't have enough trainees to transcribe it all. So we just transcribed willy-nilly.

**VANDERPOOL** These people would have been customers?

**KIRBY** No, these were our ASA folks.

**VANDERPOOL** No, excuse me. (I meant) the people you gave the material to.

**KIRBY** The people we gave them to...our discussions at that point was with special branch and with Carter Clarke's (B% section).

**VANDERPOOL** Okay. It wasn't until later that you gave them to State, I guess.

**KIRBY** Oh, we gave the stuff to State, but I don't recall any great hurrahs from them.

**HATCH** And ASA and MID worked in the same place? They were sitting in the same office as some guys...(cut off by Kirby)

**KIRBY** You couldn't tell the difference, yeah. We just knew there was a difference, but that's all. Oh, they were Carter Clarke's.

**VANDERPOOL** You know, there's a man named Kenneth T. Young who was a member of the State Department Special Projects Staff. You probably remember him.

**KIRBY** I don't.

**VANDERPOOL** But he worked in the Far East Section, so you maybe you didn't. But anyway, he worked for a guy named T. Achilles (B% Polysoides).

**KIRBY** Oh, I know him. Hell, I know Polysoides. Polysoides was a dud.

**VANDERPOOL** Well, this man, Young, wrote a memo in mid-48 in which he pointed to the lack of resources being applied to the Chinese problem - not the Russian problem (but) the Chinese problem - at ASA and the navy. And he was informed in this memo - by all this material that had been published on the Chinese Communists - and he said, "Somebody in the government better put ASA and NSG to work on the Chinese Communist problem because we're getting caught short. We don't have the intelligence on those people. So in other words, there was all this intelligence, like you say, on this rising power, and SIGINT had produced (B% nothing). Is that right? You know, that SIGINT had...(cut off by Kirby)

**KIRBY** The British had produced most of it up to that point. We weren't doing anything with it. We didn't have any resources to put on it. Heck, we were trying to get enough stuff to handle in some fashion the Russian program where we couldn't cover much of anything worth a darn. The only things we could cover were by accident because we knew how to do book breaking and all. We had materials from drop copy; I'm sorry, we had materials from various sources on the political and stuff like that. Believe me, there weren't enough resources to cover anything. And yes, I heard the complaints about the Chinese Communists. My interest in this was the fact that the network was extensive. We

already knew that. We knew it from the snippets we got here and there. We knew it was all part of a great big network. We didn't understand who was doing what, but it looked like it involved government-to-government commercial espionage deals, propaganda. It was a whole variety of things, and then this was the first stuff that made it clear that opps, there are varieties of things in here that we just didn't know about. We didn't have any collection on the whole network. We didn't know anything about it. We knew that there was something there, but that's all. And again, the intelligence people were aware of a background...don't forget; there's one thing you've got to remember. Not all Anglophobes disappeared at the time that Roosevelt decided to sign us up to join with the UK in the war against Germany and later Japan. There were a lot of people who did not trust the British or anything.

**BAKER** And some of them were very powerful people.

**KIRBY** And some of them were among our bosses.

**VANDERPOOL** Was Carter Clarke one of those?

**KIRBY** Well, let's just say that he was not really totally trustful of almost anybody, but there were some people he was less trustful of than others. (laughter) Let me put it this way: at one point after Lou Tordella became the Deputy Director of the agency, Carter Clarke gave him a firsthand lecture on how he should not extend himself too far towards various people who were then our cooperative parties in various endeavors that we were doing. I wouldn't say he was a "phobe." He just felt that you had to watch it, and the type of thing we had here could be typical of what you would expect. If it was not in their interest...and you see, I don't know why this stuff was not. I think if you look at it real hard you will see that what this was, was a lot of work. The part you've got here, there's a lot of others: commercial espionage, and commercial...it was just like with the Japanese. It was commercial warfare. And it was the agreements for and against which you don't tell another party about. You don't. And you'll find here that the discussions have to do with borders, and frontiers, and cooperation even with the Japanese at this late date, and on and on it goes. There's a lot of stuff here. It's more than bipartite; it's tripartite and quadrapartite a lot of things which seem very strange, and I always wished I had more time and had all the stuff that I thought the UK had because I think it would have been fascinating. I have the same feeling about something we're not working on at all: this would deal with spy handler stuff. I think we could learn an enormous amount about things that really went on. I would like to know who instructed people who went to certain negotiations and were traitors in their negotiations. Who instructed them to do that? I don't think they went there on their own as a traitor. This is the kind of stuff that showed up in here. The discussions...it never says who instigated it, but it's real revealing material. And if you really were following what you're trying to do now, it's a great revelation. Think of it in terms of conspiracy and who is conspiring with whom to do what? And you'll find you'll have a hell of a time ever figuring out who caused these things to happen. Do you find many that say this is based on discussions that somebody...but they don't start out in the middle; they start out with a policy obviously behind whatever is taking place here.

**VANDERPOOL** Well, the only thing I can relate to, I guess, in that respect, since I'm...you know, this is just one small subset of this other stuff. The only thing I can relate there is, you know,

we had all this intelligence lying around from [redacted] this stuff, from diplomatic communications, from MAGIC (B% at least) from German communications that showed the Chinese Communists weren't just some little band of bandits in the hills.

**KIRBY** Look, they had been approved by somebody, and not just the Russians.

**VANDERPOOL** Well, maybe so. I don't know about that. But anyway, that being the case then, why didn't the U.S. put a lot more intelligence resources on that Chinese Communist problem than they did, because they just...drips and drabs?

**KIRBY** Well wait a minute. You've got to look at...it's like trying to read the Bible. You've got to look at the situation and the conditions at the time. Two things: number one, what we had was great for Japan and for naval stuff in the Pacific. The Chinese Communists...the only networks that were developed were these pseudo-clandestine type things. The rest of it, they didn't need so many communications. They used motorcycles and stuff like that. They were pretty smart. You had a growing potential problem, but you did not have a real live problem. I remember looking at the sort of collection, and what we could do and things like that. And it wasn't until they exploded and took over that they began to develop a nationwide network. You can't intercept what isn't there and, therefore, what do you put your resources on? Sure, let's go after this program, but they had all this stuff here, and man, this took operators like we didn't have many of. It took highly skilled operators, and believe me. We were still struggling to get the 8- to 10-word a minute Morse guys in shape to get us something we could use. So there were many factors. And the other was that that did not come up high on the unofficial list of priorities. We operated on the basis of hand-to-mouth. In the early days when I finally went to industry I found I was well-trained. I had spent the first several years of my life in this business going from no customers, no targets, no product that anybody was interested in or knew anything about, to developing something that would sell in the market and bring us in enough bucks to keep us going from year to year. And believe me, when I went to E-Systems this idea of living from year to year where you're in a competitive environment was nothing. That was child's play compared to the early days of ASA and NSG and that, because we didn't have anything. We had nothing. I hear people around here worrying. My god, I'd give anything to be coming back and starting out my career in the situation like you have today: the greatest intercept system that has ever been developed; you've got a following; people know what has been done; you have a product which is recognized. (We had) none of that! Now, this is a time when, believe me, it was bad enough to go for that which looks like it was top-priority: espionage and things that were happening in your own backyard and (that) you could sell. McCarthy was working at that point. We could begin to sell stuff, and we could get money to make this agency go (and) these agencies, ultimately.

**BAKER** Let's talk about that evolution a little bit. That's a key point. You came back in late '45. Okay, what did you do when you first came back?

**KIRBY** I came back, and I joined this new project which Frank Rowlett had started a year or two before. You see, they really started some people pulling the dip stuff together before '45.

**BAKER** Cecil Phillips and the Soviet problem.

**KIRBY** Yeah, Cecil Phillips, and they had started pulling this stuff together.

**BAKER** You're still in uniform? A young captain.

**KIRBY** Oh, yes, I was still in uniform. You bet your life. So I came back and the idea was we were going to go to work and start making some order out of some of these things. You had these two nets. You needed somebody who had developed something from nothing, because on the German program we had learned to develop from nothing except the notion of a signal, to the T/A, the signal analysis, sort these things down, find people who could do a job, and so even if I was a temporary worker, which I announced I was when I came back.

**HATCH** You were going to get demobilized or get out as soon as you could.

**KIRBY** I was getting "demobed." I was going to leave as soon as I could and go back to school. I had already written to Cornell. They were going to accept me, and I was going to become an organic chemist again. But still I had a capability that...Frank had met me over in Germany. He found I was on all the research programs taking the unknown stuff and working on it at GCHQ during the war. Whenever we had new links we couldn't break into and the links between the scrambler and this others, I was involved in those. I was the only American involved in that because that's what I liked. So he put me on this thing, and then I decided this is going to be kind of interesting. We had a bunch of people with great knowledge of what to do, and how to break codes and ciphers, and how to ingeniously use whatever machine capabilities we had, and to intercept, which we had not much of. And it was just fascinating because here was people who...and the other thing was we all came back believing that we'd had a hell-of-a big part in winning the war. That was the important thing. And then some of us decided, you know what? This would be more useful. You've got to keep this going. We became disciples, I believe, of an idea that this had to be kept going. If it could happen here, it could happen again. And we ought to have this.

**BAKER** Were you heading up a team, or were you part of a team?

**KIRBY** Yeah. I became like a deputy to...first I came in as a part of a team, just loosey-goosey. Then I became the deputy to Duberstein.

**BAKER** Okay. Do you recall that organization designator?

**KIRBY** WGAS-93B. Woodgas-93.

**HATCH** Part of ASA.

**BAKER** Okay, you were working for Duberstein.

**KIRBY** Yeah, WGAS-93B. Originally it was just 93, but we had made it "B" when I came in, and so it already had a specific designator.

**BAKER** Do you remember how many people were in it?

**KIRBY** Yeah, there were about 35 to 40. And we had some very good...we had (B% Kodear), we had Brown; we had some excellent linguistic people and all. Very unusual.

**BAKER** A mix of civilians and military?

**KIRBY** A mix of civilian and military. And then we were bringing people in by the droves. I

mean that literally.

**VANDERPOOL** And this was just the Russian problem, sir?

**KIRBY** Just this part of the Russian problem. But I also had become aware in TICOM of the printer problem, and so I was the only one pushing at that time for, "Hey, we've got to tackle this printer," because I also had heard from the British, I think, that they had a scrambler in there. I had already done the German scrambler. I was just getting converted to that, and I thought, heck, that would be nice to work on the scrambler problem.

**HATCH** Because these 35 to 40 (people) were just working Morse decrypt and cablegrams.

**KIRBY** They were working mostly just getting the cable stuff in order and figuring out the "A" net and the "B" net and taking the intercept that was coming in and seeing if they could sort it and make it Russian versus something else. They had been doing work on the cable traffic, but this was to begin work on the overall (B% front). That's what it was for, and so I was asked to do it; start getting this problem pulled together. That's when I came in. And Cecil Phillips knew a lot about the cable stuff so I proceeded not to pay a heck of a lot of attention to that. That was being taken care of. That's all that was being taken care of. So then we went to work on the other stuff.

**BAKER** This was cable traffic to...?

**KIRBY** It was Soviet cable traffic to Washington.

**BAKER** To their embassy?

**KIRBY** Yeah.

**HATCH** It was just dip. There wasn't any military yet?

**KIRBY** There was some military coming in from our collection from the ASA stations and from the NSG stations.

**HATCH** But most of it was dip traffic, just telegrams that we had scarfed up.

**KIRBY** That's right, and we were starting to bring in the traffic...we had a few TA guys who had converted from Japanese or from German. Remember, ASA had always done a few of these diplomatic and other things all during the war, which the navy did not. They put everything on Japanese and other naval-related stuff. And ASA didn't do that. They always had a few people working on other things, and some of those people were working on the traffic analysis and all on this program. They had been pulled from whatever else they were doing. They were starting to work on the TA.

**BAKER** The ultimate target here being Soviet agents?

**KIRBY** No, the target was Soviet. No. We broadened that immediately. Soviet military. I want to know how the army, navy and air force communicate. Well, it was HF, and that was about it. How they communicate, and what do they use? What do those cipher systems look like? And we were just starting to find that out. We knew nothing about that. All we knew was we had a lot of 5-digit traffic. It looked just like the dip stuff, but it obviously wasn't. We had no literal traffic except a few very, very low-level things; didn't know what they were; didn't care really because we couldn't fit the big stuff together. Basi-

cally the anonymity of wartime had succeeded. All the commanders who knew much about SIGINT were gone. It was very anonymous because we only briefed commanders. We had no big distribution lists. When they disappeared, the audience - the users - disappeared. We had no market for...we had no targets. The Japanese and the Germans were gone. We didn't know what else might be of interest. We thought SIGINT ought to be kept alive. How? With what? And the fact that Carter Clarke and them had figured out that there ought to be this espionage problem, if you want to look for something, I would say that in the early days there were two things: 1) Carter Clarke's penchant for irreligious, questionable approaches to do things that he believed really would make a big difference; and the other was General Canine coming in when he did. Without those two things this agency would not exist today because we made it from year to year. Every year you had to have something big that would get you the bucks the next year and would make people interested. Plain language turned out to be the greatest, continuous thing that we ever invented. Few of us around here really ever want to admit to that. But it was.

**BAKER** Despite the bias against it?

**KIRBY** The only bias against it was all of us cryppies who wanted to feel that we...(cut off by Hatch)

**HATCH** The strong bias was true. TA's and linguists were just support personnel, weren't they?

**KIRBY** Right. Exactly right, but you see, again, growing up with the British I never felt that way. This was the other part of the British...learning...(cut off by Hatch)

**HATCH** Well, a TA-linguist in the Brit system was as equal as a cryppie? But not in the American's system.

**KIRBY** You bet. Now, the cryppie was like the railroad engineer versus the fireman. I'll agree to that over there, but he was only a little bit more. The other guy was just as essential as the other guys, but you see, everybody did everything. So how could you say that this guy knew more? If he was a cryppie, he knew more than the guy who was just a TA man. But the other guy was going to get there. That's what he was working for.

**HATCH** The cryppie was also a TA guy.

**KIRBY** He was a TA guy; he was everything.

**BAKER** And linguist probably too.

**VANDERPOOL** Of course, you know the most recent stepchild of that whole thing is the ILC, a much-maligned, you know, plaintext...guys who sold them stuff anybody can have access to. One of the most lucrative things today is...I wish you had been around to sponsor that.

**KIRBY** Well no, to me the most lucrative thing that should happen, and NSA has not gotten very much involved in, is this stuff called PROFORMA traffic.

**HATCH** Oh yes, that's very true.

**BAKER** Yeah, we wrestled with that for years.

**KIRBY** When I left here I was working on what was available at that time, and I was very interested because it happened to be the air defense. It happened to be the selection of

activity targets and so forth. I'm trying to remember what that was called.

**BAKER**

**KIRBY** And I left here really interested in the fact that, "Hey, here's a new thing happening. It looks like it's an aggregate. There's all these things." And from what little I could find out, we had navigational systems; we had guidance systems. It had already appeared in the very high-level. We knew it was there because of the other work we were doing on auto-keyed stuff. But I felt that, "Hey, when this appears...as it seems to be at the lower level..." That's why we spent so much time, and that's why I used to come back here and why a lot of guys around here still don't like me, because

**HATCH**

**KIRBY** To me the fun of leaving here was getting out of going over to congress and justifying budgets and getting into the lab again like I did in the very beginning of my career here and messing around with signals. I've had more fun than anybody. It's the only reason I feel as young as I do these days is I've had more fun. Now, these things here, I think that there was an enormous opportunity as you look back for fantastic information on a lot of things we'd really like to know. I looked at the VENONA stuff, and I see you know what? It's sort of dead now, but man, we got all the traffic. We could recover information about people, and maybe we can even get some idea of who instructed folks to do certain things. I'll tell you this, that Carter Clarke's interest was trying to find out who was behind some of the things going on. He didn't give a dang about...(cut off by Hatch)

**HATCH** Well, there were a lot of spies apparently never uncovered, right? They're still floating

around somewhere.

**KIRBY** Of course. You can still match...I don't care. There's some stuff I wouldn't want to publish. I'd also like to know things that were never published, or never brought to light, people accepted bribes to do things. There's a lot of it in there. Some of the folks like even Lou Tordella and Ann Caracristi, who were never in on the project, don't know that's there. We used to find it. I would personally brief Carter Clarke. He'd say, "Don't you say a damn word about that because if we ever become "Big Brother" we'll lose every nickel of funding that we might get." So you never talked about that stuff, but it's there. It's kind of amazing what we have. He's right! That's exactly what would happen.

**VANDERPOOL** In one of these interviews that Manson had with...I've forgotten now; it might have been Josh Cooper. He said there are two things that we haven't given you Americans - this was in like September '46 - one of them is this stuff, which we now know about; the other one was something called [redacted] (spelled). So Manson put that in a letter and sent it to Washington and got something back to the effect "don't you ask any more about [redacted] That's none of your business. You stay away from that."

**BAKER** Manson was our liaison...(cut off by Kirby)

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**KIRBY** He was with USLIC. He would be what's now the SUSLO.

**BAKER** And Cooper was the other way? He was the Brit here?

**KIRBY** No, Cooper was one of the principals of the...(cut off by Vanderpool)

**VANDERPOOL** He was in charge of all the cryptanalysts.

**KIRBY** Josh Cooper was a brilliant guy, and he was in charge of a lot of the operational cryptanalysis for many, many years in England.

**VANDERPOOL** So does that name ring a bell, Mr. Kirby, [redacted]

**KIRBY** Yes. [redacted] was not strictly SIGINT. It was handled by different folks on a different level. That's why they wouldn't want anybody here mucking up or getting involved in...something was already...we knew what to do with it; where it had gone, and at that point I think it was probably not important anymore. But it was important that you had done what you had done, but I don't think it's...it's like we've spent so much time being sure people would not know about VENONA. For a very simple reason: you don't want to publicize until somebody wrote the dang book about the thing which was not (what) NSA wanted to do, but the attorney general and the FBI wanted to write the dang book, which I think doesn't help anything. Nobody is going to believe that that's what really happened, so you don't accomplish anything. Now, CIA wanted to do it at one time, but Benson K. Buffham was the Deputy Director, and he called me. He said they wanted to publish a lot of this stuff because we're having so much trouble with the intelligence committees; we're getting such a bad name. The CIA wanted to publish this stuff to show what great things we had done. All I said was, "Oh man. I can think of nothing worse. It's just going to raise a big ruckus. You'll never convince people that we really did what we did because they won't understand it." I know this. The problem with going and telling somebody what we've done, you've got a sample of material. Picture this: you go in and you say, "I've got this stuff," and it's a report (from) a KGB agent spy handler back to Moscow on dealing with somebody. The name we've got isn't the guy's

name, it's a covername. And you don't get who the guy is who is saying this, and the activity is very carefully worded so that you don't get a specific notion about the guy lives on such-and-such a street and was operating...but you have a report. Remember, the report is very specific, and the guy says, "Okay, that's great. How did you do it?" "Well that's a little complicated, and I'm not sure I can even explain it to you if I tried because this was a 4-digit, one-part code. And this message was sent this year, and this message was sent in this year, and it was supposed to be a one-time tablet; it wasn't, but we found a match and we somehow or other worked these things out. And this is most of the groups that are in that thing; and we got a covername," and so on. Why, get out of here! You know. "What are you talking about? You guys are crazy." And that's basically the handling that if you were smart you got. There was one time when I was sent in to brief somebody at State to show him this material, and I was kicked out because these were our glorious allies and "you, young man, are going to lose your scalp and a few other bits of skin on other parts of your anatomy if you keep this up," and I believe to this day (that) I went in, and I was set up, and I got the reaction that I was expected to get, and somebody's conscience was then clear. They did not need to bring the Assistant Secretary of State in on anything at that point because I had been kicked out of that office. Not by him, but by his administrative...(cut off by Baker)

**BAKER** Okay, but State was such that when...(cut off by Kirby)

**KIRBY** No, they just didn't want to mess with them, and they didn't think they'd believe it, and so I went in carrying a message that was bound to be rejected and, "We've done it! We now have a record that we attempted to do this, and if anything ever comes up (and State says), "You didn't brief us." "Oh yes we did! And you kicked my emissary out and threatened him." Because I wrote it up. I don't have a record of it, but I gave it to Carter Clarke. And he wasn't at all surprised. It was just like he was chuckling all the time.

**VANDERPOOL** Why did this material stop coming in in '47? Why wasn't there any more of it?

**KIRBY** I don't know whether they said the...I think it disappeared. That's all I can remember. But the other thing was. I'll just have to tell you very truthfully. To me it dropped out of sight. And I had no reason to pursue it beyond that. We didn't have any burning questions about it, but I think I must have known more. Something tells me I knew what had happened to the system. The system disappeared.

**HATCH** In the VENONA case they finally went back to one-time codes. They quit repeating so you couldn't break it.

**KIRBY** Yeah, but VENONA only ran for a short time. When we brought our traitor over here they found out about it, and they stopped. But there's still enough stuff to be matched that there would be many, many more names to come out...(cut off by Hatch)

**HATCH** Oh yeah, well they worked on it for a long time.

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**KIRBY** They did work on it for a long time.

**HATCH** But it becomes lost.

**VANDERPOOL**

[redacted]

**HATCH** Maybe they went landline or something.

**KIRBY** Okay, but there could very well be a reason: landlines or printer! Remember, they were [redacted] and we were not covering anything.

**VANDERPOOL** Okay, so it could have been a technical reason.

**KIRBY** We had nothing, no ability to cover any of that stuff at that point. So that could very well...as I say, I know in the back of my mind I knew why, because I did keep up on what was on the air and what was not. This had to have died out - or at least for our interest died out - at that point in time. Now remember, it was at about that time they also began to introduce true [redacted]

**VANDERPOOL** Yeah, and that didn't even cover that much.

**KIRBY** And the embassy transmissions kept on probably still to this day, but for stuff that they really wanted they began to go in various, remote areas where this stuff had appeared before, they began to go to the [redacted]

**VANDERPOOL** All right, sir. It sounds like it's all very coincidental with the U.S. involved in trying to get the Nationalists and Chinese together. So if we got this...we've got this other Russian stuff. We had some good Chinese Communist messages, almost all the military at (B% Chengkou) during that period of time, but then the Nationalists and the Chinese Communists kind of just told each other to kiss off, and that's when General Marshall said, "You guys (B% don't fit). I'll leave you to your own fate, and he bowed out of it. So that seemed to have a lot to do with our - AFSA's - attempt to get these communications.

**KIRBY** It did, because you see at that time I was strictly in the Russian program. It wasn't until much later I became the DDO over, or ADP over...where I worried about all those things. At that point I was stealing everybody else blind. Anything I could get for the Russian program I got for the Russian program, because that's what we were building and pushing at that time. (TR Note: Baker changes the tape here. The other interviewers apparently leave at this point.)

**BAKER** Okay, I'd like to take a step back a little bit to...you were in AS93, and then you were deputy to Mr. Duberstein. Okay. And how long were you there do you think?

**KIRBY** I was in AS93B from 1947 until 1949 when it became AS97, and right after that on May 20, 1949, we became AFSA. For a short time I was the head of what AS97 which was a branch which had included what had been AS93B.

**BAKER** And this was the entire Soviet effort at the time?

**KIRBY** Yeah, that's right. The whole thing.

**BAKER** What were the branches of ASA working on in that timeframe?

**KIRBY** We were working some Middle East. We were working on the Soviet. I'm trying to

remember. There was some other satellite stuff that we were working on which was not...we had like an ALO setup at that point, so but the Russians had gotten big enough. It was an organization all of its own, and the rest of them were spread amongst these other groups.

**BAKER** Did they have to double their wares in a similar fashion?

**KIRBY** Yes, and then finally we were pulling them all together and, of course, coming with the joint budgets and then under AFSA. Then naturally it was presented as an AFSA budget. But remember, the problem with AFSA was, AFSA was under the Joint Chiefs, and the Joint Chiefs really didn't do anything with the organization, so it was being run by the SCA's. I think as I said in that one little talk I gave a couple of years ago, the problem with that was it didn't work at all. And the responsiveness during the Korean War was so bad that finally the Brownell Committee was put together because of the failures of AFSA in the Korean War, and the lack of direction, and the lack of really concentration of technical capability; but mostly the lack of control of intercept and the collection resources. That's where the thing failed completely. So eventually in about 1950 the Secretary of Defense and the Secretary of State were told to do something about this, and they put together the Brownell Committee who then proceeded to look at the organization and came up with the recommendation that it be made a national agency and it be taken out from under the Joint Chiefs, and really came up the NSCID-9 which then we operated under for a number of years. But that's kind of the chronology at that particular point. Because really, ASA and the part of it that had the NSA ceased to exist on May 20th. That's when it became part of AFSA. May 20th, 1949.

**BAKER** Okay. ASA did not have its own separate existence?

**KIRBY** ASA continued to exist as ASA, as a Service Cryptologic Agency, but the part of it that was the national operation became AFSA. So AFSA took over the major part of the cryptanalysis, and machine, and all the rest of it.

**BAKER** Were you still assigned to ASA then?

**KIRBY** No, I was assigned to AFSA then.

**BAKER** Oh, you were assigned to AFSA. Okay, so ASA ended up being this what, collection...(cut off by Kirby)

**KIRBY** ASA ended up being a Service Cryptologic Agency with collection, and some cryptanalysis, and intercept control.

**BAKER** Primarily oriented on military targets.

**KIRBY** On military, yes. Well, and it was a military arm. It was the army group that was responsible for collection and for doing whatever the Service Cryptologic Agencies were supposed to do including field exploitation, reporting, and things like that.

**BAKER** And to whom would the commander of ASA report to?

**KIRBY** He was under the Chief of Staff Army.

**BAKER** Directly?

**KIRBY** I believe so. I don't recall the specific thing, but I think he remained under the Chief of

Staff Army, yes. I don't think that's true now. I think that's all changed around a bunch now. But he was at that time.

**BAKER** Oh, yeah it has. And generally under staff supervision through your time there, it would be under the G2.

**KIRBY** Yes, up until the time it became...it definitely was under the supervision of the G2.

**BAKER** Two questions about your early days back here. Number one, when did you become a civilian?

**KIRBY** In about...I'm thinking it was around November of...wait a minute. It was before the UKUSA Conference, so it had to be before that happened. In 1948 I became a civilian.

**BAKER** Oh okay. So you stayed in the military for several years after you came back.

**KIRBY** Oh yes. I was held over. I had points to be let out and everything else; overseas time and everything else, but I was kept in until...and I'm trying to remember the specific date. I really can't. I think it was in January or February of 1948. Then I converted to civilian. So when I went over to the UKUSA Conference I was an ASA civilian, army civilian.

**BAKER** So you were an involuntary servant, do you call that?

**KIRBY** Oh, yes. I was just kept in. Right. I just could not get out until then. Yes, indeed. I was not demobilized. I was not allowed out until that happened in 1948.

**BAKER** And by then you figured you had so much of your life invested in this business you stayed.

**KIRBY** No, I got so I liked it. I had still kept it open to go back to Cornell and work in chemistry. But at that point I really decided that this is what I would like to do, so I stayed.

**BAKER** Now, from the time that you came back to Arlington Hall until it was absorbed in AFSA, by then you were civilian. Was all that time in the Russian problem?

**KIRBY** Yes, every bit of it.

**BAKER** You're probably one of the old hands there now, or you are thee old hand there.

**KIRBY** Yes, I imagine I'm one of them. The only one I know that is before me is Cecil Phillips who was a young kid working on some of the...(cut off by Baker)

**BAKER** No, but I meant in 1949 you were already an old hand.

**KIRBY** Oh yes, by then definitely.

**BAKER** Running a division?

**KIRBY** Yes. Well, running one at that time was a branch. AS97 was a branch. But it would be like a division now.

**BAKER** You had what? Fifteen hundred people working for you at the time?

**KIRBY** It was a bunch. I don't remember the exact number, to tell you the truth. I've seen the organization charts, but yes, there must have been that many.

**BAKER** But it is the whole Soviet problem.

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**KIRBY** It was the whole Soviet problem.

**BAKER** And then, of course, the big event there was in, I believe you said '48, when Black Friday came on.

**KIRBY** That's right. That was the big kicker.

**BAKER**

**KIRBY**

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**KIRBY**

**BAKER** Plus you've got burgeoning plaintext.

**KIRBY** Yes, and we began to really exploit and find that there was a gold mine in the plaintext in terms of intelligence, and I mean highly-desired intelligence.

**BAKER** Was Jack (B% Goering) already working with you then?

**KIRBY** Yes, Jack was one of the people we brought in very early on that. Jack was really in charge of the linguistic effort on that, and we then found Olin Adams in '47 working in the remains of an OSS group down in the old State Department building, and we hired away that whole group. And I received some bad slaps on the back of the wrist because of proselyting (sic) of...since we really decimated the entire unit. But then the people themselves, to the investigators, told them that there was no future in what they were doing. They didn't know how long they would be employed, and so basically that just disappeared. But we were desperate for linguists.

**BAKER** But you solved that problem very quickly.

**KIRBY** Well, not very quickly. We had a lot of new linguists from that one unit, and then as time went on we kept adding more linguists as time went on. And we began to develop machine methods of scanning and pulling out traffic so that one person could effectively look through a lot more traffic in a great hurry.

**BAKER** Was this (XG)?

**KIRBY** Ah, yes. Right, yes.

**BAKER** Okay, but the linguists you're still hiring from the outside. You're not building them yourself.

**KIRBY** Oh yes, but we're training too.

**BAKER** Oh, you are building some yourself? Okay, good. Now you're still leaving it up to the services to train them, or did the school develop them here?

**KIRBY** No, we were training them ourselves. The school...it might not have been the school, but we had our own training programs going which later became the school, so we were already developing our own linguists. There were internal classes and sending people to school at universities and a whole variety of things which now are formalized under various terms, but...(cut off by Baker)

**BAKER** That's what I'm reaching for is a little seed, the seed corn there.

**KIRBY** Well, that's what it is. We were already starting to send people to school on our own, and we had to fight to get those authorizations from the Department of Defense. Then we did begin to set up a school for formalized training, taking that load away from the operational divisions who shouldn't be fooling around with that. We still had to do a lot of on-job training, so we still had after a person went through courses at the university or school, bringing them in and teaching them the real life problems. And also we

began to get voice traffic, which I don't think you have ever, or will any of us, ever solve all the problems of linguist-transcribers and things like that. But we began to get those types of things coming in too.

**BAKER** Now, as AFSA becomes NSA, you stated pretty clearly earlier today, and implied very heavily at your presentation a couple years ago, that the Korean War helped bring NSA into being and the failures of AFSA.

**KIRBY** Oh definitely. AFSA really was...the failures were so bad and so obvious that the demand on the part of people outside the SIGINT community was, "Hey, let's straighten this out."

**BAKER** And did we solve it pretty quickly?

**KIRBY** Yes indeed. We sure did.

**BAKER** So by the end of the war we were doing a good job.

**KIRBY** No, no. By the end of the war...and I don't remember when the Korean police action stopped...(Baker cuts in)

**BAKER** Spring of 1953.

**KIRBY** But NSA was formed then. NSCID Number 9 and so forth; that was November 1952.

**BAKER** You only had about 6 months there before the cease-fire.

**KIRBY** That's right, so you see we did not really ever do much, because you couldn't make a silk purse out of that sow's ear in any 6 months. But then we began to get things pulled back into shape and to get a collection control system and to begin to get tasking at the stations straightened out and worked out. It wasn't straightened out; there just wasn't anything. Each SCA did what it wanted to, and basically AFSA was being run by the SCA's, and it was really a vast failure.

**BAKER** There was no operational center and no place to really...(cut off by Kirby)

**KIRBY** No, and really the Joint Chiefs could not run it. It was supposed to be under the Joint Chiefs, and they couldn't run it. They didn't run it, and so all they did was say to the SCA's, "You take care of the problem." So basically at that time AFSA was run by the SCA's for whatever running there was.

**BAKER** Okay. When AFSA was formed you were in a outfit called AFSA-24?

**KIRBY** Yes, I was in AFSA-24.

**BAKER** Is that also the Soviet problem, or is this something different?

**KIRBY** Yes, that was the Soviet problem.

**BAKER** Oh okay. So we're talking about just different names for the same organization all along. Okay fine. And this became under the new NSA...what did it become, and did you stay with the Soviet problem?

**KIRBY** Yeah, I stayed there, right. And after it became NSA...I'm trying to remember and I should remember what it was, but I must admit I don't. Because under NSA...oh, I know what happened...(cut off by Baker)

**BAKER** From the very beginnings did you have the ALO and all of that?

**KIRBY** Yes, we had that basic division. I know what happened. I was Chief of AFSA-24. We established NSA in November of '52, and I believe that about that time, just very shortly thereafter, General Canine...I stayed in whatever the organization was for just a few months, and then I moved to Plans and Policy Division, NSA.

**BAKER** Very quickly after NSA was formed?

**KIRBY** Yes, very quickly. Right. And then after that, after I was Plans and Policy for about 2 years that I was the Deputy Plans and Policy, and then I moved to...(cut off by Baker)

**BAKER** Who was Chief Plans and Policy?

**KIRBY** That was Air Force General...I can't even remember his name right now. But we did have an air force one-star that was in charge. We got along real well and I think worked very, very well together. And then General Canine moved me to the Office of Collection, which was not doing well at all. We were not doing a good job of providing upgrades for our collection equipment, and tasking control, and things like that. This is a part of the business I liked. He also gave me a considerable budget to work with. So NSA began to buy and provide to the SCA's things they couldn't get, or wouldn't get, from their own channels, from the services, and that I think began to establish a precedent which kept on for a long time.

**BAKER** And also drew them to you!

**KIRBY** That's right. Made them beholding. But it really was necessary. The things we got were quite necessary.

**BAKER** How big an organization was your collection and...(cut off by Kirby)

**KIRBY** Oh, gee, it was small. It was really quite small. We had some signal analysis and all. I forget what the exact number is, but it was probably three or four hundred or something like that.

**BAKER** Did you do a lot of travelling to field sites and things like that?

**KIRBY** Oh, my, all the time. Yes indeed. That was part of it.

**BAKER** How many field sites did we have in those days?

**KIRBY** We pretty much at the end of this time, except for places like the last couple of German sites which are now being closed, we had pretty well established these sites worldwide.

**BAKER** Okay, the structure that we're familiar with?

**KIRBY** Uh huh. Thirty-some sites. It was pretty well set in concrete. The CDAA's, which some of them went to the sites that then existed, were the only thing that was added really after that.

**BAKER** Earlier when you were in Plans and Policy, you said that was just for a short time?

**KIRBY** About 2 years.

**BAKER** 1952 to '54? Does that sound right?

**KIRBY** Yes.

**BAKER** How was that organized? Was it just primarily staff?

**KIRBY** Yes, it was just staff. It was staff function. Yes, very definitely, but I was working most of the time on second and third party exchange things and trying to make sure that the technical staffs like the Prod 04 and groups like that, that they were able to do their job and that Plans and Policy Division did not get involved in micromanagement. Because there was enough to do at that level, setting up exchanges, and sort of monitoring things that went on with SCA's, and we also began to have the unified budget. So that's when we really started, and it was when I was in Plans and Policy we started really unified budget activity for NSA and the SCA's. I actually was involved in that very heavily.

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**BAKER** So you were actually budgeting for the SCA's.

**KIRBY** We were helping to put together the submissions which went in...(cut off by Baker)

**BAKER** Which they would put through the services.

**KIRBY** Well, to make sure they were coordinated with whatever came under the budget, the portion that NSA submitted, or approved.

**BAKER** And at that time NSA is under the Assistant Secretary of Defense?

**KIRBY** Yes it was at that point. Beginning in November it had started reporting actually to the Office of the Secretary of Defense. It was Graves B. Erskine and I guess it was called ASDI, but Assistant Secretary of Defense, Intelligence, but that's where you reported.

**BAKER** You said you were dealing with third party relations. What sort of third party relations did we have in those days?

**KIRBY** Oh, we were putting [redacted] in business. We were putting [redacted] n business, and we were starting to deal with other...already called them third parties as such...but we were dealing with countries and starting to work out exchange agreements with other countries in return for technical help, and equipment help, and things like that.

**BAKER** Does [redacted] go back that far?

**KIRBY** It doesn't go back quite that far. We were dealing with [redacted] strictly on a base-rights basis. No, but as a cooperative deal (we had) [redacted] and countries like that. And we also had a...whatever agreement that you want to call it, cooperative agreement. Remember, you had the Australian and Canadian agreements too along with the British agreement.

**BAKER** Okay, all separate, not one big (B% team) like we get later.

**KIRBY** Well, it was pretty much one thing, but they were all really separate functioning agreements because you wanted to keep things...not to get them mixed up. You didn't want the same thing that applied to the UK to apply to all the others in terms of exchange. So they were all separate agreements.

**BAKER** Did you sense that for the rest of your time here that it stayed that way?

**KIRBY** Yeah. Probably we called them something different, but basically they were always specific agreements...(cut off by Baker)

**BAKER** So you had gone about 5 years when I came here, and I've always had the impression that, while the British relationship is the closest, the others get pretty much what they wanted, and we exchange pretty much...(cut off by Kirby)

**KIRBY** Yeah, we exchange pretty widely, but if they were to ask for some of the things that we've talked about here and there, you would not do that. We have turned people down because this was something beyond their sphere of influence, activity, or really interest. And so it has worked that way. You wouldn't expect the Australians, for example, to be vastly interested in what was happening in northern Siberia.

**BAKER** Right. Okay, your time in collection, those 2 years. Did you notice any dramatic increase in traffic in those days?

**KIRBY** Oh yes, there was a dramatic increase in traffic. We were building up the printer collection. And at that time a former ASA official who was at that time in CIA, namely Frank Rowlett, opened up the tunnel operation in Berlin, and the equipment for the tunnel operation was all provided by the Office of Collection, NSA, because we had the sources to the people who built Cyrillic typewriter cages, and so forth. So we purchased large amounts of "training" equipment which we then transferred to CIA and wrote off on the requisitions. When CIA received the equipment then they dropped accountability. And General Canine at one time called me in and asked me, "What is all this stuff doing?" So I told him as best I could, but did arrange for somebody to come over and brief him. It had all started before he was even briefed, and I was told I could say nothing about anything except get the equipment, or to start ordering the equipment if I could possibly do it. So I did; (there was) nothing illegal about it, and I knew it was going to be perfectly legal, within the law the way we would be handling it, but he finally got the idea that, "Good gosh." I had a several million dollar budget, and all of a sudden he found an enormous chunk of that going into Cyrillic printing and recording equipment, and some more 2-channel stuff, and a whole bunch of things like that which he really didn't understand. We weren't building any new stations, so he did ask me, and I did sort of explain, and all he did was grin and dismiss me. And sure enough, he was then filled in completely right after that.

**BAKER** You did all this in anticipation that you were going to get some real returns from CIA.

**KIRBY** I knew we would. We had been briefed on what they had, and the only thing that could happen was it could be discovered and shut down, which eventually it was. But yes, we did anticipate we'd have fantastic returns, so this was no problem. But I would have done it even if it was minimal returns as long as it was another agency's operation, and we being basically reimbursed, which is kind of what happened too. We not only dropped accountability, we did receive the money back for the equipment. When we sent it to them we had worked it out so that basically we were reimbursed for whatever we had done, but then we dropped all accountability. We had nothing to ever tell us...(cut off by Baker)

**BAKER** No O&M to be concerned about. What sort of thing did you get from them, from the tunnel?

**KIRBY** Oh, well we got...it was the hottest military traffic and things of that sort, because this was really a very secure method of transmission - landline. And so they had none of the

inhibitions that they had on the open radio communications.

**BAKER** Rather like the Brit's during World War II.

**KIRBY** It was just much more open and free in what they talked about, and they talked about everything.

**BAKER** Was this Group of Soviet Forces in Germany?

**KIRBY** Yes, GSFG, yes. We got all sorts of information. We also got things about the Far Eastern Military District and the entire USSR; missilery, the whole nine yards, because they'd be reporting in and coordinating things among the various...(cut off by Baker)

**BAKER** Was this highly caveated, or did most of the military intelligence people get this?

**KIRBY** Oh no. It was...the distributions, I forget exactly what happened, but it was pretty much just the normal distributions. But this had some caveats, yes, because of the source it had some caveats.

**BAKER** This was pre-GAMMA time. What did they call it then?

**KIRBY** Well, I think it was just "Eyes Only" or it specifically went to individuals. Before GAMMA we had what I thought was a pretty good system, and that was basically...you identified who was supposed to get things.

**BAKER** So by name.

**KIRBY** In some cases by name, or by specific office.

**BAKER** Are we into an era here now where we're beginning to process things by machine...(cut off by Kirby)

**KIRBY** Oh, yes, a lot stuff by machine. Yes, plain language was being processed quite heavily by machine at this point, and the distribution...we had considerably different systems now for distribution, the teletype, various means of actually getting the material around in a big hurry. Yes, everything was being souped up because we had a lot more material coming in.

**BAKER** Hardcopies falling away?

**KIRBY** Yeah.

**BAKER** Okay, so we were already moving that way by the mid-fifties?

**KIRBY** Yes.

**BAKER** Okay, when you left collection you went to OSD Office of Special Operations.

**KIRBY** Yes. By the way, it was after the...I had one thing which...we were doing the budgetary process, and I was originally in the cryptologic staff. But then later in 1961 I went back as the Deputy Director of the Cryptologic Staff, because at that time I was called Plans and Policy Division. But when I went back to the cryptologic staff, that was the beginning of the CCP process which was where we began to bring in and look at the justifications for even service requirements at that point, and to meld them with the requirements, so when it all went up and was presented at the various budget approval levels, it had all been coordinated.

**BAKER** Who invented the CCP, or was it just sort of an evolution?

**KIRBY** It was sort of an evolution. We were involved in the invention of it, but it was not...but it later became...it was where we basically set the pace, and people reviewed what we were saying we wanted. And we had questions; we had to try to resolve those questions. Later on they were pretty much dictating what we would present and how we'd present it. That's about the time I left the agency was when we saw that we were being run by the program, rather than running the program. But originally we did run the program, and it was simply the mechanism that was used to justify and to get all the things in some sort of an order that was understandable to everybody.

**BAKER** Okay, let me step back here to this OSD Office of Special Operations. What was that all about?

**KIRBY** Well, this was the one that had the oversight of NSA. So when you were preparing the NSA budget it had to be reviewed and approved by Office of Special Operations, OSO, OSD.

**BAKER** Did you actually move down to the Pentagon?

**KIRBY** Yes, I moved down there. Lou Tordella had been there, and then I moved down to the Office of Special Operations, OSD, and Lou became the Deputy Director NSA at that point.

**BAKER** Okay, and you were sort of NSA's man to this office to make sure our budget was not mishandled, abused, spindled, and mutilated?

**KIRBY** No, I actually helped review the budget. People were appearing down there and making a presentation to me, and I was participating in the critical review of what NSA was presenting as needs for a budget.

**BAKER** As an official of the SecDef?

**KIRBY** Yes, I was on loan to him, but that was my job.

**BAKER** Because you were the resident expert, but you essentially were assigned to SecDef.

**KIRBY** Yes, indeed. Yeah, I was there to provide know-how and access to people who had know-how, but also I was there to participate in the review and to catch things that might be missed by the fellows who didn't know NSA that well.

**BAKER** Lose any friends there?

**KIRBY** Oh, bunches. Yeah, bunches, but I usually found ways to tell them don't go for this because that's never going to happen, but you'd do better if you do the following. So I did not work against them. I actually helped to cut out things that would never be approved in any further review and to find things more easily justified. That's basically when I...I began in Plans and Policy...I began in the budget thing, continued it in OSD, and then really between OSD and the financial people in the Pentagon and NSA we ultimately invented the CCP in about 1961.

**BAKER** Okay, and where did you go after that job? That was for a couple years, what? 1956-57?

**KIRBY** Yes, that was '56 and '57. Then I went to the Industrial College of the Armed Forces for

a year until '58. Then I came back in charge of the Office of Machine Processing.

**BAKER** Was it commonplace for our seniors to go there? You were a senior by then, weren't you?

**KIRBY** Well yes. No, Lou Tordella had gone to the War College, but I did not want to go to the War College, so I actually wanted to go to the Industrial College for several reasons: there were some different things I thought I wanted to do. And I did go there in '57 to '58. Then when I came back, I was the Chief of the Office of Machine Processing; had all the computers.

**BAKER** Was that your first real involvement with computers, or you'd been involved with them...(cut off by Kirby)

**KIRBY** Oh, no. I'd been involved with computers since the earliest days over in England. No, I had been working with computers and computer-like devices always. So this was not my first. This was...(cut off by Baker)

**BAKER** From their beginning, not from (B% your's).

**KIRBY** That's right. This was just picking up on something that I was already working on long and hard. No, this was not new at all, but it was exciting because we were bringing in a lot of new equipment and things like that.

**BAKER** That outfit that you had earlier was called (B% ADVA). Is that the correct term?

**KIRBY** It was just (B% ADVA).

**BAKER** How did you work with them in this new job, machine processing, MPRO?

**KIRBY** Oh, I was the one who supported...I received the request from them for things. I talked to them about what we could and could not do. I looked at the number of hours and tried to adjust the...what we could do is to get as close as I could to fulfilling the requirements. I was accused of being more sensitive to (B% ADVA's) requirements than other people's, and I suppose I was. I knew more about the programs that they were...(cut off by Baker)

**BAKER** Still got a soft spot in your heart for the Soviet problem too, don't you?

**KIRBY** Yeah, that's right. And it was still our major problem, and it was the one that was easiest to justify, (B% the Soviet problem). But we did a lot of work for them, and it was just...you met with everyone, and it was sort of a roundtable decision and discussion when you were allocating machine time. You really got into great detail on what was needed, how it was needed, when it was needed, and what would be the biggest payoffs for the use of machine time and for the use of new machines. What new machines, what real changes did we need, and rental versus purchase, (or) lease versus purchase; all of that really a part of the...(cut off by Baker)

**BAKER** What kind of computer equipment were we using then, IBM's?

**KIRBY** IBM. Yeah, and a lot of special equipment. We were building...(cut off by Baker)

**BAKER** We were into -360 then?

**KIRBY** Into -360's; We're in the 1200 series. But we were building a lot of special equipment for

the Russian and for other problems: the Hagelin and various others.

**BAKER** We were building, or we contracted that out?

**KIRBY** We were contracting to have built. We weren't building ourselves. We were contracting to have built.

**BAKER** Okay, we're already too big to build for ourselves.

**KIRBY** Yeah, and Charles (B% Scharleman) was in charge of really the R&D that was doing a lot of construction and contracting. And Dale (B% Mariston) from PROD - Production - who was sort of the guy who converted a lot of the crypto requirements into how you do it by machine.

**BAKER** You're out here by now. I mean, we're out at Fort Meade by now.

**KIRBY** Yes. Right.

**BAKER** And all this was installed in the basement as we know it today?

**KIRBY** Oh yes, sure is.

**BAKER** Does the nickname Project LIGHTENING mean anything to you?

**KIRBY** It sure does. LIGHTENING was mid-'57. In fact, if you look at this you'll be amazed at how many things were instigated by Canine, or he sponsored and supported, and so forth, the things that really were key to the development of the agency, which is why I said there were several things I thought were amazing: one was the breaking into the [redacted] which brought bread and butter to ASA for awhile. And then General Canine entering in as early as he did and doing all the things he did in the early days of NSA, which no one person had ever supported so many things before. So you have to consider him as one of the keys and being the father, really, of what happened. Yes, LIGHTENING...the project had 25 million dollars that was allocated. NSA was the agency that was to supervise the program, divided into three areas: tung diode's (TR Note: probably short for tungsten); chips as we know them right now; and cryogenics, and all of them turned out to produce things...the tung diode's and all were the ones that really didn't get used for a heck of a lot, but the chips and the cryogenics are the two things that really are still the big payoffs from that project. And probably no 25 million has ever had the impact on the United States and on scientific endeavors as a whole...(cut off by Baker)

**BAKER** So this is where we're leading in computers at NSA.

**KIRBY** Yes, but we were getting some money to the people who needed some assistance, or a boost, namely the big companies, to give them some incentive to go ahead and do what needed to be done. But just like a couple of COMSEC developments later on, they could not keep these things as secrets of their own. It was shared with everybody. Whatever they did, just like some of the COMSEC stuff on the telephone, and the voice systems, and all. It became common...it was public...well, available to the cleared public. And that was the same thing with LIGHTENING. And it did accomplish the speed increases that we wanted and a lot more. It was a very successful project.

**BAKER** One thing that I skipped over back in '56. Do you recall our effort during the Suez Cri-

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sis?

**KIRBY** Yeah.

**BAKER** You would have still been on the Soviet...(cut off by Kirby)

**KIRBY** No, at that time I was over in the...actually at that time I was probably...I started in collection, but then I moved to OSO, Special Operations. What I did was I helped get the money for the things that we needed to do that I had gotten briefed on before I went over.

**BAKER** And what do we have in that area other than the Liberty which went on the Liberty later? But what all did we...what were our...(cut off by Kirby)

**KIRBY** We didn't have much of anything. We had things in the Mediterranean. We had some facilities in the Med.

**BAKER** [redacted]

**KIRBY** Yeah, [redacted] had facilities, and we were helping them add to their capabilities.

**BAKER** [redacted]

**KIRBY** Right. Because we just didn't have much.

**BAKER** So we were primarily dependent upon [redacted]

**KIRBY** You bet in those early days.

**BAKER** Okay, now we're into the early sixties, cryptologic staff, 1961. That's the CCP (B% beginning).

**KIRBY** That's when we really began the formalized CCP and I was the Deputy Assistant Director of the CCP Staff.

**BAKER** What was the real driving force behind that? Just to pull everything together?

**KIRBY** Yes, to pull things together. We found the services were having a terrible time on their own. They were not able to justify...in other words, the reviewers in the Pentagon were waiting for them to come in independently, and they were just pulling the tail feathers out right and left because there was no unified approach. You couldn't relate what they were doing to what somebody else was doing. So basically what the CCP process originally was designed to do - originally, not what it became later - was a common overview of the need for assets, and the utilization of assets, and what would be accomplished, and applying that all the way down the line to the lowest collection station; how they would participate in meeting whatever objectives were to be met.

**BAKER** Orienting resources toward the target, right? (TR Note: Long period of silence on tape here; then cuts in) Okay, did you interact a lot with Admiral Frost in this period?

**KIRBY** O, yes. Oh definitely, yes I sure did. And in fact, I went with Admiral Frost on at least one worldwide tour. And then, of course, I worked later...but yes, I worked with him a lot. And I found he was a very good guy to work with. I don't think he fared so well with Dr. (B% Cubini) later on in some of the things that happened. Gene Cubini then became the guy who reviewed the functions of NSA; he was the reviewer.

**BAKER** He went afoul of quite a few people, didn't he?

**KIRBY** Oh, but I became very good friends with Gene Cubini. Yes, I wouldn't say that we were copacetic on everything because that's not so. But I knew about the cryptanalytic process, and he didn't. And I never hesitated to let him know that in the reviews. And most of the real review activity took place in his office at 6 o'clock in the morning when I would go over there to meet with him, and we would go through and argue the things. And Jack (B% O'Gara), who was part of his office and was our reviewer, was not there at those meetings. It wasn't until afterwards we'd get together and discuss whatever general agreements we had come to. But Gene Cubini was...yes he was a very hard guy to deal with.

**BAKER** Did you know him when you were at the Pentagon?

**KIRBY** No, I had never met Gene until he basically became the Assistant Director over in the Pentagon looking over what we were doing. That's when I first met him.

**BAKER** Okay, so he's (B% sort of) Assistant Secretary?

**KIRBY** Yes.

**BAKER** Was he a political appointee?

**KIRBY** He was an appointee, yes. Sure.

**BAKER** Oh, okay. So there was no reason for you to...(blocked by Kirby). He may not have been there.

**KIRBY** No, I had no reason. No.

**BAKER** Okay. Have any occasion to have anything to do with the SecDef himself, McNamara in those days?

**KIRBY** Oh, yes, we used to brief McNamara on a variety of things. And as part of OSO we did not just brief him on SIGINT matters. There were some other clandestine functions, a lot of them that OSO was involved in which I was involved in as a member of the group, and many of the briefings had to do with base rights; it had to do with special arrangements with other countries for access to, or transportation, or special arrangements for U.S. work to be done in those countries, and security, and cover, and a whole bunch of things. So it was an eye-opening experience.

**BAKER** Okay. How did Admiral Frost approach the things different from General Canine?

**KIRBY** He was much more low-key. He did not have the presence in meetings with a lot of top DOD officials. He tended to speak in a voice that was so low that people couldn't understand him. These are minor things, but in terms of making an impression on people you're supposed to make an impression on, they made a difference. He was a professional SIGINT'er. He knew about SIGINT, but somehow or other, he did not project that he was a knowledgeable, dynamic, driving leader for the SIGINT effort. So he did not fare well with his SecDef superiors, namely Gene Cubini in particular. They had great difficulties.

**BAKER** During this period we're also talking about the Cuban Missile Crisis and some things going on in the Middle East. But you're in a macro position now. You're involved with

the...(cut off by Kirby)

**KIRBY** That's right. When I came, yes. And the Cuban Missile Crisis...was called in when that began because you had to be there so that you could talk to the SecDef Office when things happened. And I believe at that point I was the Deputy Director NSA for Production, the Deputy ADP at the time that particular thing took place. Well, we had several things, of course, about that period of time. We also had the navy and the ship...I talked about it a minute ago and now I can't remember.

**BAKER** The Liberty?

**KIRBY** No, no, the one that was captured by the Koreans.

**BAKER** Oh, the Pueblo. Well that's '68.

**KIRBY** Pueblo. Yeah, but that happened much later. But what I'm saying it was in that period of time that I sort of think a lot of these major events took place. The missile crisis, yeah, I was called in and basically, we had some things to offer, namely, we'd seen a buildup of Soviet activity there; we watched the shootdown when it happened; we participated and Dr. Tordella and I went over and talked to this group that was doing an investigation of Gary Powers, and it really was...we were providing information, but it was not the same sort of dynamic participation. I think you'll find that out when we have this October thing. It wasn't like some of the other events that had taken place earlier where SIGINT was absolutely key to everything that went on. Photography played a much larger part in that crisis in detecting what was going on. Now, we had to still uncover what was under the roofs of things. And we had uncovered the buildups, and the ships, and the activities, and things like that. But it was a little bit different.

**BAKER** Okay. You recall photography as being the prime...(cut off by Kirby)

**KIRBY** Being very, very important. I'd say the prime...because that's what they used to brief the public on.

**BAKER** So you took over as...at what point in here are you...you become the ADP in '64?

**KIRBY** I was Deputy ADP in '63. And then in '64 I took over as Assistant Director Production, yes. The exact month I've got someplace, but I forget what it is now.

**BAKER** Okay. And who was it who selected you to move on to that position?

**KIRBY** At that time the Director was Pat Carter; it was General Carter who selected me, but I think the person who pushed for it first was Dr. Cubini, and he and Pat Carter had sort of a running argument going about this at the time. But Gene Cubini was the one who was pushing very hard for me because he wanted somebody who was a career technologist to take over the operations because he felt that that really was the thing that we should have.

**BAKER** Of course, Dr. Tordella was the deputy director too, wasn't he?

**KIRBY** Yes, that's right.

**BAKER** He was a long-time acquaintance of your's too.

**KIRBY** Yes, but the deputy director didn't have the ability to nominate and to push for things that the Assistant Secretary of Defense for Intelligence did and, oh yeah. There's no

doubt that Lou wanted it to go that way. But when you look at who were fighting the battles - Pat Carter on one hand and Gene Cubini on the other hand. And really the Assistant Secretary of Defense, he was the one who was going to make the decision and then the Secretary of Defense. And that's what happened.

**BAKER** Oh really. It wasn't that the director didn't have that much freedom of action.

**KIRBY** Not when it was elevated the way it was. Not when it was elevated to the degree it was elevated. It became a perogatives battle in which the referee had to be the one who had the oversight of the agency.

**BAKER** Interesting! And you didn't feel you had Carter's support really?

**KIRBY** Oh, yes, I had Carter's support in a way, but he was going to disrupt what had become a tradition, that it should be a military job. So that was basically what was happening. Oh yes, I was great friends with General Davis, who was at that time the ADP, and that I was going to succeed if I succeeded somebody, and I was a good friend with the...(cut off by Baker)

**BAKER** So you're the first civilian to hold that position?

**KIRBY** I was the first civilian to become the DDO or ADP. Yes. That broke the precedence right there.

**BAKER** And where was the resistance to that change?

**KIRBY** The military in general.

**BAKER** But not including Carter?

**KIRBY** Well, let's put it this way: Carter was a military director of the agency and was expected, among other things, to sort of respect some of the ingrained traditions, if they were ingrained, and this one was. And therefore...(cut off by Baker)

**BAKER** So the military expected Carter to put a military man in there.

**KIRBY** Basically he would have been hard put to suddenly say to everybody, "Look you guys. I'm going to appoint this guy just out of the blue." He would have had a big set of problems, but if there was intervention from outside and from the civilian sector...you know, this is like sometimes you want to lose a battle, but you've got to lose it because somebody else won it; not that you gave in. Somebody else beat you; higher authority and so forth. So I think that's what it was. No, Pat Carter and I talked very freely about things. There was no big problem though. He was torn; he figured that maybe it should go that way, but he was not really in a position to say, "I'm going to go against the military, whom I must now live with for NSA to get things done. I still have to live with them." So with him this precedence-shaping event would be better to be impressed on him from outside.

**BAKER** Okay. Your relations with Carter were pretty good all along?

**KIRBY** They were still good, yes. Absolutely.

**BAKER** And in this period, of course, the big event is the buildup in Viet Nam. How did you view that?

**KIRBY** Right. I was involved - and I felt that I was in pretty good shape to do it - in stealing from the Russian to increase the Vietnamese.

**BAKER** Win some more friends. (laughs)

**KIRBY** It was very difficult for some of the people in the Russian problem to come in and convince me on things when I had, with them, decided that this is probably the place we could skinny down here and put things over here, or we can reduce the intercept coverage here and put it here. Because I was still fairly conversant with the Soviet problem. But that's always hard. It's hard for anybody. I think of a President who has to cut spending and you look at where do you cut, and what do you do? This is basically the same thing. How do you reallocate resources? But it had to be done and so that's why...(cut off by Baker)

**BAKER** When did NSA start building up for Viet Nam?

**KIRBY** Oh my, I trying to remember. In 1961 when I was over there we still were not involved. It must have been about...(cut off by Baker)

**BAKER** You visited Viet Nam in '61?

**KIRBY** I sure did. It must have been about '63 when I was the Deputy ADP that we were starting to really have to build...I don't even remember what the dates were when we started our fighting in Viet Nam and things like that. I honestly don't.

**BAKER** Yeah, you can cite a precedence there since '56, but the real buildup starts in '65, the massive buildup.

**KIRBY** But even then in '63 - '64, then in...it was about in '65, yes it was that we were making the moves of people; the middle of '64 to '68, 1965 - '66.

**BAKER** Okay, we were building our sites up

**KIRBY** That's when I was ADP. And that's when we were really having to really...(cut off by Baker)

**BAKER** You made the...leading the services to take the lead there, or was NSA Headquarters pushing to put more field collection there?

**KIRBY** Oh no, we were the ones that were pushing, again, with the services. Of course, they were trying to use it to push for everything, and we wouldn't do that. We just pushed for the ones we felt really were essential to do the job. And some of the field facilities and all...it's just like Korea. There were certain things that we knew were going to be kind of a waste of time and effort, but there were others...I was for airborne DF. A lot of people here at NSA were not, but I felt it was one of the few good answers to the problem. I felt that the airborne coverage of the very low-level and low-powered HF was the only way to collect that stuff. You could not set up, you could not run vans in; you couldn't do any of that baloney, and so that was another very, very effective tool to do the job.

**BAKER** Did you make any trips to Nam in this job?

**KIRBY** Yes, I did. A number of them. I visited General Walt on the peninsula just after he had killed off the Viet Cong guerillas. Because there was only about 5,000 of them, and he got them all in one fell swoop from information we gave him. I was there with Pat Carter

right after he had actually cleaned up that area. From then on it was North Vietnamese troops. The VC guerillas...there were some of them, but the marines got them early on. Pat Carter had a son who was a Marine captain with Lou Walt, so we visited him out there.

**BAKER** What peninsula are you talking about?

**KIRBY** It was down...I'm trying to remember the name of the river, but it was where Walt...oh gee, I can't even remember the name of the place now. But Walt and the marines caught these guys out on the peninsula...(cut off by Baker)

**BAKER** Was that up near Danang, in that area?

**KIRBY** No, it was further down. I think it was further down than that. But they actually caught them on this peninsula out in a river, and they wiped out the bunch. It was only about 5,000 of them. And that really, as he said, "That's the guerilla problem," because from here on out it was North Vietnamese troops moving down there. Remember, the so-called guerilla activity; there was not a heck of a lot of guerilla activity. Most of it was North Vietnamese.

**BAKER** Well, that may expand quite a bit in '67 in the delta. (laughs)

**KIRBY** You may have had real guerillas by then, yeah.

**BAKER** Okay. You were talking earlier, there were a bunch of crises in this period, and that's certainly true. When did you actually leave the agency?

**KIRBY** I left the agency in February of '68.

**BAKER** Okay. Just about the time of (the) Tet (offensive). That was my time in Viet Nam. The Arab-Israeli War in '67, the so-called Six-Day War. What are your memories of that? Anything striking come to mind?

**KIRBY** No, we had reasonable coverage of what was going on. We were keeping track as best you could of the activities. But really, when you think about it, there wasn't a heck of a lot we had to contribute to that except keeping track from the outside of what was going on.

**BAKER** A lot of turbulence over the Liberty getting shot up?

**KIRBY** A bunch! Yes, a whole bunch, because...to this day I consider that to be a very strange (B% bird).

**BAKER** Do you view it as an accident, or do you view it as an attack?

**KIRBY** I view it as whatever the United States Government has found it to be.

**BAKER** In other words, you don't really have it settled in your own mind?

**KIRBY** I have it pretty well settled in my own mind, but my policy is it's whatever the U.S. Government found it to be. Otherwise it's just my opinion.

**BAKER** Yeah, well it's your opinion that I'm interested in.

**KIRBY** I feel it was very questionable that it was an accident. Let's put it that way.

**BAKER** Okay. What about the Czech spring? That's more back in your area, the Czechoslova-

kian...the Soviet...the Warsaw Pact putdown of the Czech spring.

**KIRBY** Well again, that was one that we saw the buildup of troops beforehand and watched what happened there, but really there was no chance for any U.S. reaction of any kind. All you could do...that was one where you looked at and said, "Well, isn't this interesting!" We see these various things happening. It wasn't real clear until the blow fell, but you had a pretty good idea, because of the reserve that was built up. What was going to happen, there was absolutely nothing we could do about it. That was a case where SIGINT would give you an indication of something about to happen, but there's nothing you can do about it. It was not very useful, in other words; I don't feel. We did have pretty good indications of what was going to be launched.

**BAKER** Okay. That's pretty much coming to the end of your tour here. I guess I've got to ask the sixty-four thousand dollar question: why did you leave?

**KIRBY** I left because I found that I was spending more and more time going over and defending budgets on The Hill, of which apparently I had gotten real good, because I had helped with the CCP and, therefore, I kind of knew all the details of how the thing worked, and I kind of knew how to make good presentations. I found that there was increasing incursions from the outside on things NSA was trying to do, so it was getting harder and harder to get work done here in NSA. And you were starting to have to answer to too many people, and NSA was becoming bureaucratized. You were starting to have committees that were going to look at your personnel development of your own people, and I felt when you lose that control you lose control of organization. You no longer are able to run things, and I didn't want to do that.

**BAKER** This was from the DOD bureaucracy?

**KIRBY** No, no. This was from within NSA. We were starting to build up this training, and personnel development methodology which I find is why people go out and start new companies. They don't want to work in big companies that already have that methodology because they want to make the decisions on what they will do with your people: how they will train them, what they will train them in, how you should assign them, review them, and so forth.

**BAKER** Okay, so it's from the other directorates that...(cut off by Kirby)

**KIRBY** From the other side, that's right. I did not want people getting together in a committee and voting on what I should do with my people. When that began to happen I began to lose interest in what I was doing. (TR Note: telephone rings here and tape recorder is shut off momentarily) (Kirby cuts in)...was the set of big problems that I found, but I still felt the work was fascinating, but I also was looking then to change my career and to get back to doing things that I had done in the very early days. So I was not interested in going with large companies. I was asked to go with IBM, which is like government. I was asked to go with several companies that were so big it was like staying in the government because they already had their invested bureaucracy. So I went to a smaller company that was doing some kind of interesting things, but where I could see they didn't know why they were doing what they were doing, and I could kind of help out on that. And I could start doing signal analysis, because I told you I was interested in [redacted] and those things up here. I figured I'd never have time

to do that in the other places, but I might when I went there, and I did; ultimately I did. So that's why I decided to move.

**BAKER** You had a pretty solid offer before you even started...(cut off by Kirby)

**KIRBY** Oh, I had a very solid offer; several solid offers, but I chose that one, which many people could not understand.

**BAKER** The bottom line is you just reached your threshold with the bureaucracy.

**KIRBY** I reached the threshold and let's face it. I felt that ADP was the best job in the agency. I already had it. Where could I go from there? Unlike a lot of people I did not want to become the deputy director. I was asked before I left would I be interested, and I said, "No. Dr. Tordella is doing a wonderful job. He and I are great friends. I have no desire to do his job. I think he's doing a great job, much better than I would do in that job." He would do things that I would have very little interest in. So I decided it would be better just to leave, and that's what I did. I also had a great curiosity in what would happen outside this place because, after all, this is where I had been all the time.

**BAKER** And has outside lived up to your expectations?

**KIRBY** Oh, it's been great. But now it's unfair. I have kept a foot in both worlds. I probably spent more time and worked on as many or more things as a part of the NSA Advisory Board than...I mean, really, I did. I worked on some of the very fascinating things. I was able to participate when General Allen - before I joined the board - when General Allen wanted to set up a study of high-level...well, that was really the thing I believed in the most. Despite all the plain language and despite all these other things, I felt that the only reason this agency existed was high-level cryptanalysis, and if it stops doing that it could become anything. I could organize something anywhere to do all the other stuff, but to do the high-level and to attack things that become high-level - they may not be the same thing - but the new systems and all that were getting very complicated because of how you transmit, and what you transmit, and a whole bunch of these things, that this is the reason the agency was set up by President Truman. If you don't do that, there's no real good excuse for the agency as such to exist.

**BAKER** I think you share that belief with all your World War II comrades. It's certainly the strongest thing I've heard said. "Don't ever stop the high-level work. The high-grade stuff, that's what you're there for."

**KIRBY** No, this is what I firmly believe. That's right, because if you don't do the high-grade...in the high-grade the people we have had who've learned the most about modern-day communications switching, (and) computer control, all of them were the high-level cryptanalysts. The ultimate in these areas are the guys who've supported the things that they're doing.

**BAKER** So you came back on a contractor basis to work with the...(cut off by Kirby)

**KIRBY** I just came back on a...in other words, as a SAB member. No, I came back just as an outside person who is coming in here on a daily stipend, whatever that happened to be, plus the costs of transportation. That's all I ever came back to this agency on. I've never been...(cut off by Baker)

**BAKER** But you were still probably employed when you...(cut off by Kirby)

**KIRBY** I was employed by E Systems, so I became a special government employee, I believe is the term today; a special government employee without rights to retirement or any of those things, and sick benefits, or anything like that, but so much per day and travel allowances. Perfectly legal.

**BAKER** Well, you finally drew...are drawing some government retirement, aren't you?

**KIRBY** I'm drawing government retirement. That's because of the time I spent in the agency. So I'm a retiree, yes.

**BAKER** But you hadn't hit the 55 yet. Weren't even close!

**KIRBY** Oh no. No, no. I was 46 years old. No, I was nowhere close to that. It wasn't until I was 55 that I put in for the retirement. So this is why I stopped; and outside it's been very, very satisfying. I've worked with other foreign countries: Germany, Israel. I've worked with a couple of almost satellite-block countries in communication systems; things they've put in. I've helped build airplanes for heads of state with worldwide communications, and most of all I have worked with NSA, army, navy, air force on proforma stuff that we've installed in ships, airplanes; and during the Gulf War the (B% TOM) System to take the data and get it direct to the troops. You guys borrowed most of the equipment from us which was used because there hadn't been time to contract for it. And the stuff we had for demo and all was really basically what was available. So I felt that this was very, very satisfactory, to make a contribution.

**BAKER** So this is the type of thing you worked on with the advisory board or whatever, or was that...(cut off by Kirby)

**KIRBY** Yes, I worked with them on any problems that came up here, like what should you do about spread spectrum signals. Well, what should you do about things like the proforma? That was the very end. That was when I was getting ready to leave. Because finally I decided the board was getting stultified; too many people there for too long, so I think I was one of the first people to resign from the board, simply because it looked like it was a good idea to start getting some new people in. Which I really felt very strongly is the thing you should do.

**BAKER** So now you're trying once again to retire, are you? (laughs)

**KIRBY** No, no, I'm as retired as I want to be. I'm still doing what I want to do, when I want to do it. And I still work for NSA all the time. I give a lot of talks. There's nobody anywhere who is not aware that I am an ex-NSA employee, and in as unclassified terms as I can give them, have explained why this is an essential function within the government, what it does, how it does it in terms of what has already been published, and that this is why you have to have secrets and things like that. So I'm as retired as I want until health makes me retire further, that's it.

**BAKER** That covers mostly all the questions I wanted to cover. Do you have anything you want to leave for posterity other than what you have already told us?

**KIRBY** No, except that I worry about the fact that I see these days that the legalism which is kind of stifling us everywhere is creeping in on the agency. Because I believe that legal-

istic approaches...General Carter once said - and I believe this; I don't know if this was his idea entirely - that you can take anything, and if you go to the right legalist they will find something wrong with what you're about to do. I worry that many things in the agency we are not able to try to do because people are kind of afraid that, "Hey, this may turn out to be illegal," and I saw that more and more the more I worked with the agency: the stultifying effect of legalism versus the ability to go ahead and do things and believe that somebody is going to back you up and that you hadn't broken any law, but more and more of this idea of it isn't what it is, but what it can be made to be, I think had crept in throughout the country. Not just here, but every place else. School teachers who don't dare hug somebody for fear of being accused of treating the kids wrong; you know, sexual mistreatment. These are bad things that happened. And here what I've noticed happen is that people are less willing to go stick their neck out for fear that their head is going to be chopped off.

**BAKER** Or for fear they won't be backed up.

**KIRBY** And they won't be backed up. That's exactly right. And I still say the problem is always you can take anything you want to do...and I noted this particularly in contractual things and in relationships with people outside the agency. Now, there are two things that happen with relations outside the agency: there has always been a tendency of this agency and the people in it - and I was part of this, so I can say it - to want to grab certain things and keep them strictly within...to your breast because then you've got the only hold, unique capability. But the other thing is that when you deal with somebody...(cut off by Baker)

**BAKER** It's called turf battle.

**KIRBY** That's turf battles and that's protecting the source, yeah. The other thing is the idea that you can not discuss and be open with somebody say in contractual relationships because you may be giving them too much information, favoritism; a whole bunch of these things. That is not just in contractual things. This is in discussions on, say with industry, on problems that you have. Things that maybe need to be looked at. The tendency is to take things you think are really critical and want to sort of hang on to them and not discuss them outside and solve them yourself. Private companies do the same thing. It's not unique.

**BAKER** It's probably an organizational dynamic of some sort.

**KIRBY** But no, I still feel that NSA has a unique capability. Now, the one thing I see that worries me a great deal. I said that, I think, in the talk I gave. And that is that more and more I worry about the fact that we are retrogressing toward the AFSA setup where the outsiders have too much...for instance there is no...the one thing I'd like say, "There is no such thing as tactical intelligence and strategic intelligence. There is only signals intelligence." If you happen to need it right now it's tactical. If you don't need it except to build up background, you could call it strategic if you want to, but it could change tomorrow. The fact that we have divided the CCP and the budget exercise into those two things is disastrous. Eventually we will have to look at the whole thing again and reinvent what was invented in 1962. I have the firm conviction this will ultimately happen, and I feel that we at NSA there have been too many of the, I'll call them perogatives, have been

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given away. Too much turf had been undercut and that shouldn't have happened. The result is you don't have a clear leader where you talk about international support: what should you give to [redacted] what should you give to [redacted] what should you give to some other country? You've got everybody on the outside joining in to try and decide. Now, you have to review what you've decided. But I don't get the feeling that NSA is a clear leader in making the decisions (and saying), "It ought to be this way," and then defending those positions to the community, who has a right to criticize, which is good. But I really believe that that's the biggest thing that is facing us, is not the contraction, not the money; not any of these things. It's the fact that we are not really the leader anymore like we were at one point. And I say this as a fairly educated, outside viewer.

**BAKER** We're not the leader in SIGINT?

**KIRBY** In the SIGINT decisions on political and policy matters.

**BAKER** Who is? The services?

**KIRBY** I'm not sure. The services have gotten to be more and more. They can stop NSA dead on too many things. And I feel that is bad. That's what happened under AFSA.

**BAKER** And of course, the service agencies are being gobbled up by this large INSCOM, and (B% AFIC) and so forth.

**KIRBY** So now you don't know who is...so you're losing a professional touch even there. So if you don't know who the boss is...(cut off by Baker)

**BAKER** You're getting an intelligence amalgam and some...(cut off by Kirby)

**KIRBY** Well, who's the boss? When you are no longer clearly going to be able to make decisions, now you tell me who is going to make (1G)? To me that's a great concern.

**BAKER** Good point. Well, thank you very much, sir. Did we get beyond Cat III, you think, at any point?

**KIRBY** No, I think that some of the things we mentioned...I think they're all in the Cat III. Even the things on VENONA and stuff like that. I don't think that's beyond it.

**BAKER** We certainly appreciate your time.

**KIRBY** I tried not to get into anything that I definitely shouldn't.

**BAKER** Okay, and thanks again.

**KIRBY** People problems are the ones that you usually stay the furthest away from. They're the most classified.

END OF INTERVIEW