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NSA

National Security Agency

NSA/CSS MDR Appeal Authority P133

National Security Agency 9800 Savage Road STE 6881

Fort George G. Meade, MD 20755-6881

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protection.

NATIONAL SECURITY AGENCY CENTRAL SECURITY SERVICE FORT GEORGE G. MEADE. MARYLAND 20755-6000



Serial: MDR-114596 7 July 2023

This responds to your request of 25 June 2022 to have the document OH-2007-09 reviewed for declassification. The material has been reviewed under the Mandatory Declassification Review (MDR) requirements of Executive Order (E.O.) 13526 and is enclosed. We have determined that some of the information in the material requires

Some portions deleted from the document were found to be currently and properly classified in accordance with E.O. 13526. The information denied meets the criteria for classification as set forth in Section 1.4 subparagraphs (b) and (c), and remains classified SECRET and CONFIDENTIAL as provided in Section 1.2 of E.O. 13526.

Section 3.5 (c) of E.O. 13526, allows for the protection afforded to information under the provisions of law. Therefore, the names of NSA/CSS employees and information that would reveal NSA/CSS functions and activities have been protected in accordance with Section 6, Public Law 86-36 (50 U.S. Code 3605, formerly 50 U.S. Code 402 note).

Please be advised that the document includes other government agencies' information. Because we are unable to make a determination as to the releasability of other agencies' information, the subject document was referred to the appropriate agencies for review. At the time of this letter, the responses are outstanding. However, we were able to isolate the other agencies' equities, so we have protected them using the other government agency (OGA) redaction code.

Serial: MDR-114596

Since your request for declassification has been denied you are hereby advised of this Agency's appeal procedures. Any person denied access to information may file an appeal to the NSA/CSS MDR Appeal Authority. **The appeal must be postmarked no later than 60 calendar days after the date of the denial letter.** The appeal shall be in writing addressed to the NSA/CSS MDR Appeal Authority (P133), National Security Agency, 9800 Savage Road, STE 6881, Fort George G. Meade, MD 20755-6881. The appeal shall reference the initial denial of access and shall contain, in sufficient detail and particularity, the grounds upon which the requester believes the release of information is required. The NSA/CSS MDR Appeal Authority will endeavor to respond to the appeal within 60 working days after receipt of the appeal.

Sincerely,

Jacqueline M. Amacher

quebre M. Amac ber

Chief

Declassification Services

Encl:

a/s

SECRET//COMINT//20020108

OHNR:	OH-2007-09	DOI: 26 July 2007
TRSID:		DTR: 15 August 2007
QCSID:		Text Review:
INAME:		Text w/Tape: 20 September 2007
IPLACE:	NSA, (SAB 2), (Oral Histor	ry Room)
IVIEWER:	MURDOCK, Linda L.	
Murdock:		Il be SECRET unless otherwise specified
	at the end of the recording. Tcd interviewing	lav is Thursday, 26 July 2007. I am in the Oral History Room
		s SAB-2 building. ((Faint tap.)) Mr. with 30 years of dedicated service,
		retired in 1999 as a Chief Petty Officer
	,	laval Reserve Security Group. He is chnical specialist working as a contractor in
	support of the data acquisition o	rganization. I am Linda Murdock from the
		The initial topic for today's interview will be Navy working the POPPY Program at
	Zeto Point, Adak, Alaska. Then	we will discuss his many contributions to
		iring his career working in areas involving all ELINT, support to military operations,
	and system program manageme	ent. ((Pause.)) would you
	up, where you went to school ar	a little bit about yourself, where you grew not how it is that you got yourself enlisted in
	the United States Navy.	:-
<u> </u>	((Smack.)) Yes, ah, I was, ah, b ((smack)) in, ah,	And I, ah, lived there most of my life.
:	Went to school in the small town	n called New York, ah, did do some traveling for a couple of
	years when my dad's brick job a	ah, where I lived for about a
:	year, and tor about a went back to and I did	year. ((Faint ticking.)) But we eventually graduate from High School.
:	((Shuffling:)) The, ah, ((smack))	reason I joined the Navy was mostly
:		wn, ah, I wanted to see some of the world gs. AndAnd, ah, I remember my mother
:	was pretty upset about that ((sw	ishing)) but, ah, you know, sheShe
:	didn't want me to join the Navy, ((Sniff/smack.)) And I did my bo	but, ah, I was determined. So off I went. ot camp at, ah, Great Lakes, Illinois, ah,
:	during the winter months ((tickin	g)), which was a big mistake. ((He
:	cnuckles.)) Ah, I, ah, ((smack)) a	after graduating from boot camp IMy first
•		Derived From: NSA/CSSM 1-52 Dated: 20070108
PL 86-36/50 USC 3605		Declassify On: 20320108
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assignment was the, ah, Communications Technical Training Center at Corry Field, Pensacola, Florida. ((Smack.)) And, ah, that was about...I got there in January and graduated around September, so it was about a nine month school. Ah, I stayed an extra three weeks to take some ELINT training courses that they were offering for those that wanted to stay and take them. Ah, that ((slight pause)) part of communications interested me during the school, so I was anxious to see what it was all about. And, um, ((smack)) after some leave, when I graduated from school then I went to my first duty station, which was Adak, Alaska out in the Aleutian Islands. ((Clears throat.)) I remember wondering how did I get this? I didn't put it on my dream sheet. But, ah ((he laughs)), you know, it was... It ((ticking)) was a, ah, very rewarding tour as it turned out and, ah, I was glad I got...got to go there. Initially, when I arrived in Adak, ah, I was at the communications station, the, ah, where the guys did, ah, regular radio printer operations and, ah, the COMINT side of the house instead of ELINT. But within a ((ticking)) short period of time, about a month and a half, I was ((pause)), ah, asked to, well, told that I'd be going out to Zeto Point and I asked what they did out there. And they said, "We don't know." ((He laughs.)) That's...That intrigued me. ((Tick/shuffling.)) So, ah...Ah, I went out to...to Zeto Point and...and, ah, met up with the team. of, ah, guys that were tasked to...to man the operations out there. ((Tick,)) And, ah, it was, ah, very interesting. It was, ah, of course it was the POPPY Program. ((Smack.) And at that time, the...the program was really a, ah., ah, ((crackle)) prototype system capability run by NRL, ah, the Naval Research Lab. And we were ((sighs)), ah, the first guys to ... to run it from Adak. And, ah, everything was, ah, it was a very, ah, antiquated system. Ah, I'll...I'll say that. Ah, the reason I say that is because later during the year, the 13 months I spent there, ah, it was upgraded with, ah, a, ah, a full large, dish antenna mounted on a pedestal. Ah, and our... The NRL guys came out there to install it and so we ... we helped with the installation and the testing of it and everything. But prior to that, the operations was something you had to see to believe PL 86-36/50 USC 3605

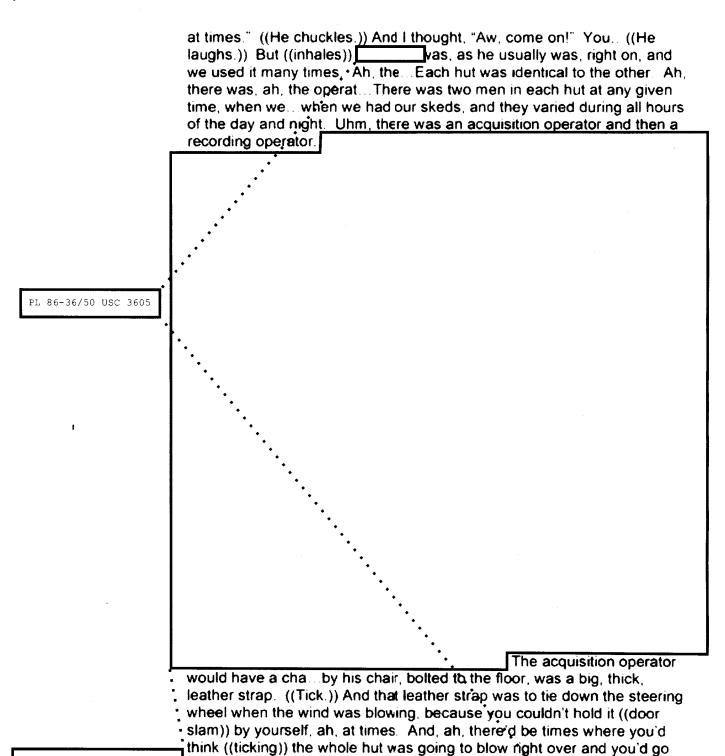
Murdock: Can you talk me through it? What a typical watch was like and what your responsibilities were?

((Smack.)) Yes, um, we had an operations building, ah, which...which is where we had most of our analytical equipment. And then, ah, a ways away from the operations building, probably about 30 yards, there were two huts, as we called them. They actually looked like large dipsty dumpsters with yagi antennas sticking out of the top of them. Ah, they were tied down with very heavy restraining cables and, ah, they had a combination lock on each of the doors. And there was a, ah, a large rope that was tethered from the farthest hut, up to the next hut, and then from there on to the, ah, the front deck of our ((doer slam)) operations building. I remember asking our chief, what that rope was for? And he said, "This is the birthplace of the winds and you're going to need that

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

Murdock: So the POPPY ((he sniffs)), you said, like was a... What we would

out into the Bering Sea. ((He chuckles.)) But...But we...We, ah, we

survived and it was a ... a lot of fun. It really was. It was, ah, you know, we

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were

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	traditionally call a store and dump?	•
: ·	Yes	•
Murdock:	You'd store the information and dump it at ((he sniffs.)) Adak. We the only dumping spot for	/ere you
•	No	
Murdock:	For POPPY?	•
	No, there were other programs. Ah, Edzell, Scotland, I think Tod Germany Ah, ((short pause/smack)) I think there was one in the I'm not sure	
Murdock:	Do you remember what types of signals, predominantly, were collected on what you were acquiring?	rere being
· ·	Most of what we were intercepting was, ah, Soviet, ah, early warradars along the coast, the coastal radars. Ah, and the method us	
Murdock:	Were there any new signals? WereWere you authorized to as ELNOTs or	sign
EO 1.4.(c) PL 86-36/50 USC 3605	They were, for the most part, they were ((swallows)), ah, a good of them were new signals. Ah, as a matter of fact, my claim to fall wasI remember once we got this signal that sounded very unus ((Faint tick.)) And, ah, I was then the, ah, recording operator and did the initial analysismeasurements. And then I followed that analysis inside and it was an unknown signal. It turned out to be HENHOHEN HOUSE radar, which was aThat was the first in that radar that we had. The others were, I remember TALL KING you know, a lot of early warning, ah, type radars that the Soviets along the coast. And, ah, I don't remember getting manmany, target acquisition or tracking radars because theyThey, of cour know we were there, so they usually only go to the fire acktrac fire acquisition modes whenwhen they identified a target. ((Void background.))	me sual IAnd I up with a ntercept of s and had ahah, se, didn't king and
Murdock:	•Î'm not familiar with ((laughter in background)) what a HEN HOUS does?	SE radar
	It'sIt's, ah, ((loud voices in background))	•
Murdock:	Hang on a second ((Recorder switched off and then back on.)) I'm sorry. Ah, going back to my question. Ah, HEN HOUSE, ((rust)) was that a a land-based radar as well?	
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PL 86-36/50 USC

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	It was a land-based radar. Ah, I believe it was a shorter, ah, shorter range radar than, like the TALL KINGs and some of the others we used to get. But I. 1.1 really can't remember now. It's been too long. ((Papers shuffled:)).
Murdock:	Okay
	But I do remember the name and the fact that it was the first detection of that radar. ((Rustling.)) And so, we We kind of gave each other kudos when we got word that it was a first detect, you know.
Murdock: ∷	How did you report your information? ((Smack)) And whto whom did you report it?
	We We sent, ah, our report Well, we would do the follow-up analysis in the operations building, ah, where we had sonographs and spectrum analyzers and and other equipment that we would use to do aaa finer grain analysis of what we recorded. And then we would, ah, ((smack)) report our findings, ah, via electrical message back to, ah, NRL and, ah, I'm told that they were They were very, ah, highly classified. It was a BYEMAN control system. I remember that. And that the, ah, the President was getting daily reports on on those for some time. So it was fairly high import of of high mportance so And, ah, but we'd send in electrical messages from the Comm center back to NRL. And there were It was, uhm, ((pause/click)) we used a form called Signals Analysis Reports, ((brushing sound)) and basically it gave the parametrics, the time of intercept, uh, all of the details we could identify from from our ((crinkling)) analysis.
Murdock:	Okay. Anything else from your time working that mission that you want to share with me before we move on?
	Ah, it was It was a It was a lot of fun. Not just because of the mission but because of the the personnel working there. Ah,

you'd get bored, so...And you'd find mischief to get into. And, ah...And,

	ah, and I remember severalsever	al stories, usually involving
		And, ah, we had a military vehicle.
	a, ah, International Scout with four-v	
	back and forth between the barrack	
•	headquarters. But at times that was	s being repaired and we had to use
•		ack)), ah, event that I remember was
:	during, well at At the completion o	·
•	, analysis and we were taking the rep to send it out via the Comm center,	oort back to the communications station
		the car had forgotten about the chain.
.*	II. I haven't explained the chain.	
	wasAlong the road, the single roa	· · · · · · · · · · · · · · · · · · ·
	bottom of a small hill, there was a cl	-
	•	the reason we did that was because
		g by, ah, checking on us, to make we
÷		Ah, and the ignition noise from their
	transmission would interfere with our	and really do a job on a recording.
		cit with a padlock so that they couldn't
:		mack)) ah, this one guy named, ah,
<u>:</u>		ot that the chain was up and he went
	over that hill and completely tore the	
	((Laughter.)) So I remember	
PL 86-36/50 USC 3605		I another similar event, we wereWe pere as part of operations ((smack)) for
	when we lost power: And ah ah	the was allWhenever someone
		would always have us paint the
: '-		ck. It probably had 50 coats of paint
•	on it by the time we ((squeak)) left. I	
•		ey got a couple of five-gallon buckets
•		uld have it, this was with his newer car, back and, ah, the cans of paint flew up
•	in the air off they were in the back	seat and one of them opened up and
:	((he laughs)) his his new car wash	i't so new any more So, well that's
:	((He laughs:))	•
Murdock	Was, ah instrumental in h	elping you pick your next duty
:	assignment?	
 ;	((Smack.)) Um, yes. I know he had	input, significant input, for it. And, ah,
		very instrumental because, um, I had
	about three months to go on the isla	
		to, ah, to man the USS Banner, which to the PUEBLO. And one of our One
	of my good friends named	ah, ((faint-smack)) he also
	worked at the Point with me, uhm	said, "Come on, Let's
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		ths It's, you know, Japan and who ship, you know." And any more. I'm tired om this island." ((He vas selected. Ah, I. I o Atsugi, a VQ-1 gi, which made me ber, ah, after I'd been ya, which was just a les. And, ah, and several beers, and, ah, a a very good mood, how, and I were led his six-month tour him right back to played. Uh, he was
	instrumental. I don't know exactly what he did, but he people ((smack)) that would, an, you know, he liked in WeIt was, ah, you know, I learned a lot while hwas	ny ELINT experience thereAnd, anah,
	hehe made somesome calls and sent a couple of ah, got me assigned to VQ-1, and, ah	
Murdock:	What did you do on VQ-1?	PL 86-36/50 USC 3605
•	Well, most of what I did was analysis. Ah, you know, not as a permanent crew member, ah, because I was in the analysis shop, recording-I mean, ah, doing and that were recorded during the flights. And I also work office, um, and my job there, which is I kind of split is and forth, but my My job in the intel office was to broad going, as to the the threat signals that they wouknow, what what to look for and and, ah, what the them and everything. And, ah, and what we knew of ((clears throat)) which varied because a lot of the, ah that they the surface-to-air missile systems that they were were hand-held, and or ah, mobile. And so, it changing target, and, ah, always a changing threat. ((Rustling.)) What was VQ-1's primary flights against.	working ((faint tick)) alysis on the tapes ded in the intelligence my duties really, back ief the pilots, coming ald see. And, you parametrics were of their locations, the SAM systems y were using s, ah, it was always a
Murdock:		•
	We flew the, ah, ((clears throat)) excuse me, flew the mission, uhm, ((tick)) against North Korea. ((Smack. TAD missions off the carriers, the <i>Kitty Hawk</i> or the Forkin against the, ah, Chinese, ah, Viet Nam. Uh, the missions were flownTheThe aircraft that we flew ((inhales)), it was actually an old, ah, converted DC-8)) And we also flew Ranger in the Gulf of the Sea of Japan there was the, ah,
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the Willy Victor and it was a Constellation aircraft. Oh, they could...They could hold 27 men. I think, a full compliment. And, ah, that was, as it turned out, the ... the aircraft that was shot down by the North Koreans in 1969. Ah, and, ah, I don't believe I knew anybody on board the aircraft, but that...That had a ((plink)) significant effect on me when I heard about it, and so... so. And the, ah, the aircraft we flew off the carriers was a Sky Warrior, A3B, and one of them is sitting right out here in the Agency's parking lot. And it brings back many memories every time I see it. ((Faint chuckle.)) So...and, ah, it was...It was great duty. I mean, the squadron was like a family. Everyone was...treated each other like family. I...I really enjoyed that

Murdock:

Well, at some point during that tour you had to make that hard decision whether to stay in the Navy or to get out. ((Click.)) What led to your decision to...to get out and seek employment with the National Security Agency?

Well, ah. I hadn't really decided, ah, to seek employment ((rustle)) with NSA. Ah, although while I was at Atsugi there was a Agency rep (sic) out there, ah, and, ah, ((click: pause)) I believe his last name was (B% And I talked to him a couple of times. when I thought I was going to get out, and he asked me what I was going to do. And I said, "I don't know." I said, ah, "You're working at NSA. How...How about NSA?" And he...He said, "Well, you know, It's It's It's It's a huge organization. Depends what you want to do, you know." ((Clears throat.)) He said, "I... I really don't know what to tell you." ((Smack.)) Um, so I hadn't really thought about it. I just, you know, I had the urge to, ah, ((faint smack)) to get back home and see the family and...and, ah...and...and kind of take things as they went for awhile. I was ... I would've ((shuffling))...I...I. .. I was very close to re-enlisting I think. but I just couldn't make up my mind and so I decided, well if you're not certain, then it's ... It's time to go. Um, ((faint tick/pause)) and in hind...you know. ((smack)) hindsight, I...I don't know. .I...Sometimes I think I should have stayed in and other times I think well if you had stayed in then you ((faint bang)) wouldn't have got a job at NSA and you wouldn't had all the opportunities you had through NSA. So it's mixed feelings really.

Murdock:

So did you apply to NSA ((click)) while you were at Atsugi or?

((He clears throat.)) No, actually I didn't. I... I went back home and, ah, ((smack)) I knew I needed to work and I... I basically, ah, I wanted to continue federal service, ah, and as luck would have it, from New York was a town called Romulus. And at Romulus was the, ah, Seneca Army Depot, which was a ah, ((smack)) um, it... They had a couple of different missions, but, ah, ((shuffle))

((Inhales.)) So I basically took a job, initially, working, ah, as...as

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 a. laborer, helping...I...They would get shipments of, you know, rockets and grenades and all kinds of stuff. Ah, Viet Nam was still going strong so it was a... It was a replenishment center where different weapons were ... were shipped to Viet Nam and we'd get 'em in, ah, via train and, you know, cargo airplanes and everything else. And so we would unload 'em, store 'em and then when the need came, we'd ship 'em out again. So I was basically working in the labor force, just...just doing that. ((Smack.)) And I decided ((clears throat)) I really didn't...didn't like that job much. Ah, you know, especially when you saw somebody smoking a cigarette near this...the structures where we housed the, ah, ammunition where... We referred to them as igloos. And so I decided, "I think I want to get a safer job than this." ((He chuckles.)) So, ah, so I applied for the ah. security police and I was accepted by the security police, ah, on the base And, ah, you know, during that time I. I, ah, I got married and, ah, I thought I was pretty well set there, but, you know, then I got the urge to join the New York State Police And they used to come by the Seneca Army Depot all the time and stop in and talk to us who were on duty on the outside gates near the highway. They'd stop in. And so I got paperwork and I was, ah, I was in the process of applying for the New York State Police when I got a letter from NSA. Basically they were putting out a, a hiring campaign to...to hire, ah, ex-military people who had clearances. Ah, they were looking to, ah, civilianize, ah, ah, And, ah, so ((smack)) they offered me more money than I was

	I was hired as a GS-5, step 4.	PL 86-36/50 USC 3605
Murdock:	In what skill community?	
	In commas communications. Ah, you know wasn't ELINT though butbut it was COMIN to got through, ah, SC-270, which was a refresher, ah, before we went to	T, ah, collection. And we had esher course for about three And, ah, during that time, es were taught out of, ah, the
PL 86-36/50 USC 3605	Ah, notnot barracks. They were old wood.	((clack)) wooden buildings
	behind the barracks. And, ahah, youwho going on. And, ah, ((pause)), you know, so we during the day until temperature got over a conjugation you know, ((click)) a guy would come through temperature gauge. And when it got so hot to because it was unhealthy, I guess. And so we organization and, you know, study our books ((Ticking.)) Ah, three months later, i went	ve'dWe would go to class ertain temperature. And then, in with a barometer and a hey'd have to release us, ve'd go back to our parent ountil it was time to go home.
Murdock:	Okay. I didn't see that in your, ah, your resupart of	me so that's an interesting

making there and I thought, "Well It's NSA. I never expected to hear

EO 1.4.(c)

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from them I think I'll give it a try

What were you hired as?

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Murdock:

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	Oh!
Murdock:	Of howhow you got hired and where you ended up. So what did you do at and how did ((he clears throat)) you enjoy that tour?
EO 1.4.(c)	((Smack.)) Well, at um, I enjoyed it a lot. II, ah, my ((rustling)) first impressions were not very favorable, ah, by either me or my wife. ((He chuckles.)) II remember theyWhen we first got there, there was no housing ((Ms. Murdock coughs)) available. So we wereWe were billeted in thethe VOthe VOQ, Visitor Officers Quarters. Ah, and the day that we arrived it was a miserable, foggy day-wet day. And I remember what. TheThe room we had was basically
PL 86-36/50 USC 3605	aa, kind of a small living room area and then the bedroom and a bathroom. ((Tick.)) And that was it. Ah, and it was justThe whole building was just filled with pecple like myself, families and small kids, and jit
Murdock	((Çuts in.)) So the mission grew before the accommodations grew?
	Yes: Yes. Ah, I remember my wife walking into this room and looking out the window, out at—to the antenna fields, which you could barely see because of the fog, and just breaking down in tears. And I thought. "Oh boy!" ((He laughs.))
Murdock	Was your wife an NSA employee at the time?
PL 86-36/50 USC 3605	No, she was not. Ah, thattheI've been married twice. That was my first wife. And, ah. ah, no, she was not an NSA employee. Ah, ((door bangs shut)), you know.
11 00 30730 030 3003	• • • • • • • • • • • • • • • • • • • •
	Ah, but the opportunity came open so we took it
Murdock;	So were you assigned to a watch to dowhat kind of collection?
maraoon, .	Yes, I was assigned to a ((sniff)) watch, Able Trick. We worked a rotating
	shift work. AhAh, it was, ah, two weeks of eves, two weeks of days, two weeks of mids; and then you start all over again. ((Rustling.)) And, ah, I was working in, ah, radioprinter, you know, copying the, ah, ((faint smack)) the ahah, military communications channels. And, ah, you know, it was aIt was
:	copying the same cases for ((coor bangs shut)) a long time, because the
•	···.
:	··.
:	··.
Murdock;	···.
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	different antantennas. But and, ah, yeah, mostit wasAt that time, it was all	
Murdock:	So it was quite pleasant really. During your seven years there, did you progress inin different positions that you worked in? ((Smack.)) Yes. Ah, initially, I was, like I said, I was working in this, ah,	605
EO 1.4.(c) PL 86-36/50 USC 3605	Were several different targets that we copied back and forth. So about the time the seven years was up I pretty much worked in all the various	,
Murdock: Murdock:	((rustling)) area areas and worked most of the targets there. Let me document Exactly when were you hired by the Agency? ((Smacks)) I was hired on May 20th, 1968. So you left ?	
·	And I stayed because I had started taking University of Maryland-courses at night and I wanted to finish up with my Associate's Degree So I stayed a couple of months extra and I actually left there in December of 1975 and returned to NSA.	
Murdock:	Okay. And when you came back to NSA, did you have difficulty finding aa new parent organization to work with? Ah, nono, not at all. Ah, I was, ah, right from the start I was assigned to	
	rotating shift work. Ah, we worked at, ah, ah, FANX III. That's where we	
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EO 1.4.(c) PL 86-36/50 USC 3605

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	<i>:</i>
	<i>:</i>
	• •
: :	
kα So I : So it was kind of a political thing.	
	back to the Fort Meade area
did you go directly to Berlin?	
Came back to Fort Meade and	
Until they changed it?	
And so when that happened, which was a	hout ab two years later the
you know, I decided, "Well, I want to go!	
so we went to Field Station Berlin.	

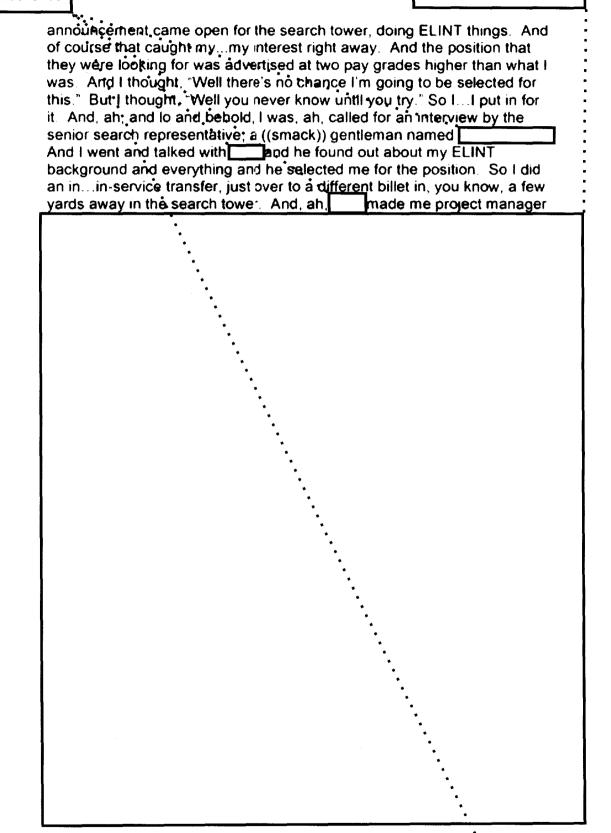
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dock:	Okay. So you were a collection operator?	
 i:	Yes, I was	EO 1.4.(c) PL 86-36/50 USC 3
dock:	((Interrupts)) And after you collWhenWhen you collect	
	information, were you. What were you doing with it?	
		•
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dock:		1
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÷.		•
•		•
dock:	Okay Where did you go after Berlin?	
<u> </u>	Well, I stayed in Berlin for three years. ((Click.)) Ah, and the	en I I came
÷.	back to to NSA and, ah, well I back up a little bit Be	
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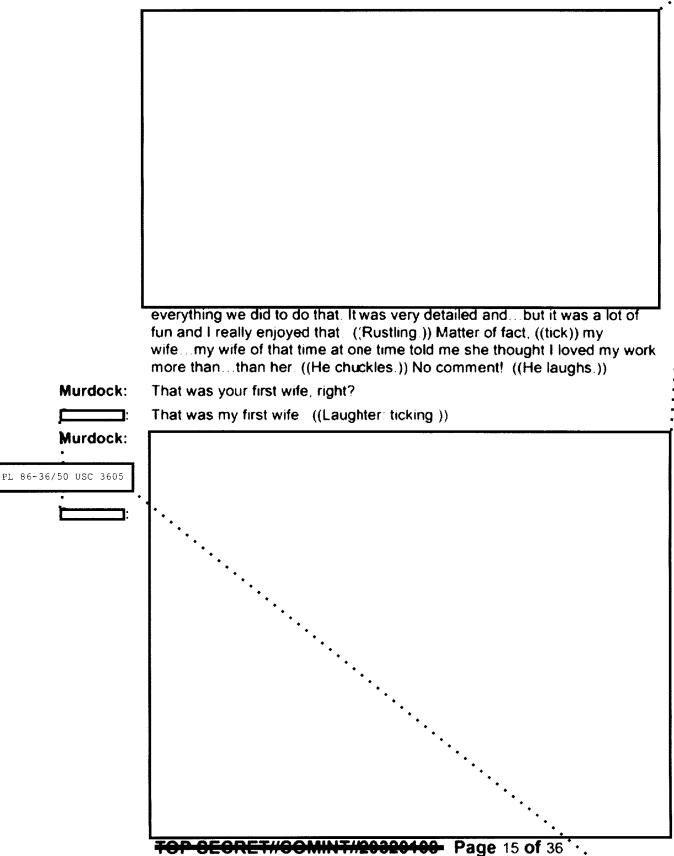
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	ah, stench in there; the burning of the paper and everything in it was in a relatively small, confined area, so we tried to get out and get fresh air whenever we could. ((He chuckles; tick.)) But uso that, that's basically
Murdock:	
: : : :	and
Murdock:	WhatWhat years were these?
	Ah, that was ((pause)), that was 19, ah, I think that was
Murdock: ,	So it looks like you left Berlin, not really wanting to?

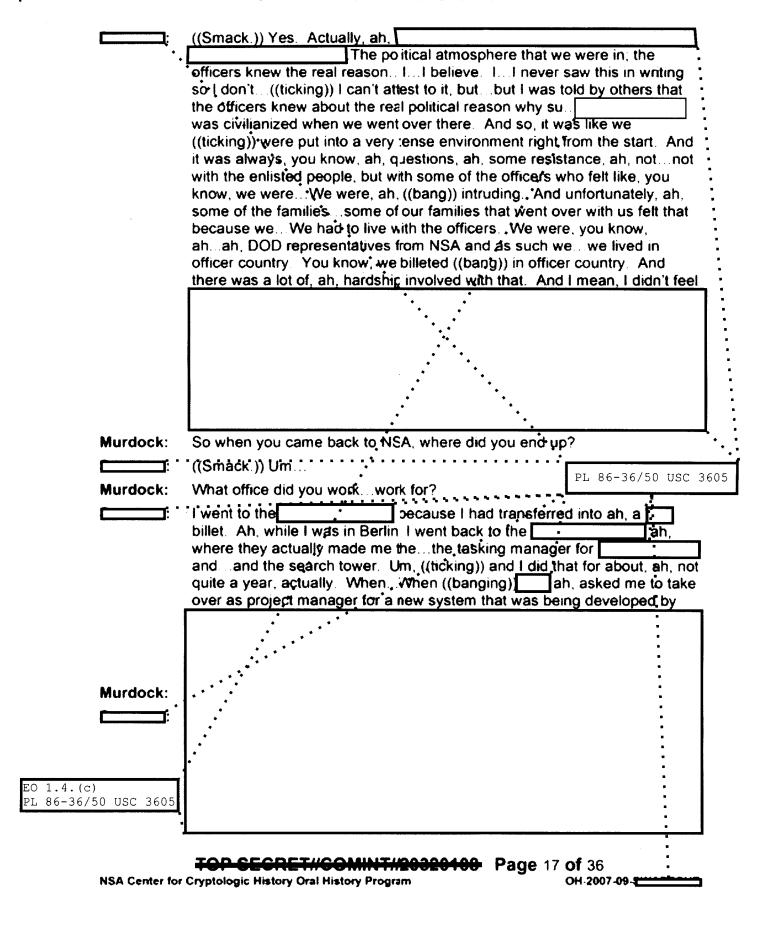
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Murdock:			
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Murdock			
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# # # # # # # # # # # # # # # # # # #			
Murdock			
Murdock	At that time, ((smack)) I was	must have gone cr	azy, because ((Ms.
	Murdock chuckles)) at that time ahI went on an interview in	e ((he chuckles)) I w	
	named . and	((smack)), ah, e office chief ((snapp	werewere
	and and was her deputy get involved with something br	But ((shuffling)) they	asked me if I'd like to
	ichickles)) And my job was the		
PL 86-36/50 USC 3605	TO TOUR OWNER THE OWNER THE		18 of 36
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PL 86-36/50 USC 3605

	ision only agent, who would, unt, helpwekது பி t of the budget documentation to ((crackling)) to start up
	then I would have to defend those initiatives in front of
	ferent internal NSA review processes; program build
	all part of that. Ah, and that's That's where I became
	car salesman. ((He chuckles; rustle.)) Okay?- It was It
	fferent from anything I'd ever done before. It was
	igued me about it was the way they defined it to me was
	portunity to write brand new initiatives, with funding, to
	and better equipment at the field sites. And during my
	((rustling)) and in Field Station Berlin, a lot of what I saw
	t ((ticking)), and you know, theThe printers that
	ntinually leak oil on you, youyou know. Ah, some of
	s just never working right ((tick)) and so in my own mind
the state of the s	ere's an opportunity to do something about that." You
	incancan-create programs andand defend those
	get new and and updated technology out to the field
	that's worth doing. ((Pause.)) And what I was tasked to
	pecame the this was the office of of ((smack))
	the representative for, ahah.
	ich was very highly compartmented. And a lot of my
friends, when I wa	
	me out whenwhen we were in And, ah, of
	And, ah, a lot of them left, ah,
	g)) over. Ah, they actually had to resign from the
PL 86-36/50 USC 3605	And And
: ab so that also in	rigued me; the fact that I'd get to see some of the
people that his kr	
apportunity, well b	asically, you know, what a TDU agent did, like I said,
🐪 wās was to, in s	ome cases, ah, write new initiati <u>ves, depend</u> ing on what
the requirements	were. I mean, you know, I, ah (B%
	g'there. And, ah, within a couple of years he was
replaced by	Um, ((smack)) and so I, in getting to
	requirements, the requirements were, I spent a lot
of time atat that	
	ich. Andand I got pretty good at defending those
initiatives Ah, bu	it was
Murdock: ((Interrupting.)) If	'm not mistaken, they had a pretty healthy budget under
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PL 86-36/50 USC 3605 TOP SECRET	*GOMINT//20320408- Page 19 of 36
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	mission. I, ah, very much enjoyed He was a very personableAt his level, III was surprised at what a personable ((click)) man he was. He not only cared about everyone that worked that program, heHe knew them by name. You know, he recognized them.
	But, um, you know, II worked as a TDU agent for four years, and thoroughly enjoyed that program. Ah
Murdock:	Just ((rustle)) to clarify for myself, as a TDU agent, did you start new initiatives where a contractor would do the research and development or were we, at NSA, doing our own research and development at the time, and bringing in contractors when we wanted to to build this small modular equipment? PL 86-36/50
	We. Most of the development work was. was done by us. In the R&E division. Um, it was what for. Um, but, yeah, you're right. There were several contractors brought in by the Agency, by the developmental division toto help ((snap)) in that effort. And, ahah, what I would do is basically from the requirements phase, I would write aa PBS1, which was the first document to to outline the requirement, um, Project Baseline Summary 1 was what that stood for. And that would basically, ah, define the requirement. It would put some boundaries on the requirement in terms of, you know, if it was a receiver, you'd have to identify the freq ranges you wanted it to be in. And you had to identify, you know, some of thesome of the design features that must be built into that system. Um, andAnd then from the PBS1, ah, ((smack)) my role there was. was to, to kind of take the requirement from the customer ((smack)) and put it into writing with help from them, to make sure that we had the requirement clarified. And then from there we went to a PBS2, which is where the developer would identify, um, how they intended to develop that system. Um, in some cases, as a matter of fact in most cases, they had more than one alternative, ah, design and they They would in that case identify both of them to where the customer would ultimately be be the decision factor as to which one they preferred to go with. And from the PBS2 we would then write a system acquisition plan, which would, ah, identify the the specifics as to, you know, how much of this is going to be developed by us. How much of this is going to be commercially available equipment off the shelf stuff? Ah, you know, how do we plan to do the integration of it together? What's our acquisition plan? What. How much is it going to cost us to buy, what we need to buy? And how much will be, ah, spent ususing procurement dollars? How much will be spent using, ah, um, RDT&E developmental funds? And what was the requirement for O&M lifecycle support? So we would

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document and that was what, what the people in the N Organization would use to track our programs as they went along. ((Rustle.)) And then, of course, the fun part ((he chuckles)) was was really when it came time to sit in the RAC room and defend these initiatives in front of ((tick)) the IC staff and other congressional staffers.

Murdock:	The RAC room?
; .	The RAC room
Murdock:	What?
·	Good, ah. Resource Action Counsel, I think is what it stood for, but but it was like a rack. In my opinion, it was a lo It was more ((sniff))more akin to a rack used for torture in the old days. ((He laughs.)) You know, what's It was tense! It was, ah, um, difficult. You had to justify your program and and right down to the dollars and cents sometimes, and you had to be able to, ah, verbally identify what what the requirements were. Why were you building this? You know, what what was your developmental approach? Ah, all these things, all the Arry questions they wanted to ask they could ask, you know.
Murdock:	And they were very smart and very technical
	They were very smart, very technical.
Murdock:	And you had to be very, very prepared.
	Yes. II especially remember a gentleman named ((Smack.)) He was chairman of the IC staff. I faced him four times. And at the end of the fourth cycle, I decided I'd had enough. ((He chuckles.)) And during the breakWell, during thatduring mymy review, hehe stopped me in mid stream. The room was filled with people. ((Clears throat.)) He stopped me in mid stream and he said, "I want to make a point here." He said, "I want to make a point, not just to be used but to everyone in this room." ((Snap.)) He said, "I priefing is very smooth. It's believable. He's done his homework. He's presented it well." He said. "But there is a time, which is rapidly approaching during these austere years when your personal integrity is going to mean more ((snap.)) than what's in black and white." And so everyone just kind of nodded and, you know. I just let that sink in, andand, ah, during the break It It was ((mechanical motor)) announced that that was my last cycle. Someone announced it during the (2G). And during the break he stopped me out in the hallway and he said, "Why you, ah, why are you getting out of this?" He said, "You're You've learned how to do this very well." And I said, "Well Mr. ah, "I said, "To be perfectly honest with you." I said, "For the things that I really believe in, feel strongly about, it's easy." I said, "But there are sometimes some things that I don't really feel like I can really support strongly. And I support them as best I can, but I just can't put my heart into it and it's not so easy." And he said, "I se Yes, I could sense that in you." And I said, "Yes, I could sense that you could sense that in me." Because he was like a pit bull. If he sensed that you didn't

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believe what you were saying, he would latch on to you and shake you like a rag doll. Not literally, but I mean, you know. And, ah, and I know I left several sets of fingernails in ...in the end of that table during some of those sessions. ((He chuckles.)) But, ah, ((snap)) he later be...um, left the IC staff and came...came here as the, ah, I think he was chief of staff for awhile. A very knowledgeable gentleman. He was tough but very fair. ((Snapping.)) But that was...That was...I thought that was the end of my...my program build and budget career, but it.. it wasn't.

Murdock:	Before we go on to your next assignment, I'd like to go ahead and take a break.
	Ckay.
Murdock	((TR NOTE: Interview resumes.)) Okay ah, we ended up with you talking about your time down in the RAC. What else would you like to tell me about youryour time in the budget world?
	Ah, basically it was, ah, ((smack)) ah, there was somea sense of frustration at various times in the budget. AndAnd ((rustle)) that frustration stemmed fromfrom the fact that it's not as easy toto write a program and to get it all the way through to the point where there is actually a system deployed andas I thought it was. I was very naïve when I went into it. I had no idea of what thethe, ah, political ramifications were from Congress and how difficult it was to get the CCP approved as well we hoped it would be. Ah, there was always, you know, theretheah, congressional cuts that came down and we'dWe'd have to, ah, write impact statements to those cuts as they affected our program. And I was naïve there too, because I'd, you know, I'd write the, you knowatat times, for instance, they decided to cut 50 percent of my O&M monies and which would provide life cycle support to my system. AndAnd the truthful answer as to what the impact was is that you've just killed my systemif I can't support it in the field, the first time something breaks, I've got a very heavy paperweight out there. But, I wasn't allowed to say that as an impact statement because those who knew more than I did, ah, said that well if you say that, they are going to take all the money. And I said, "Well, they might as well, because they are going to kill my program if they take the O&M." They said, "Yeah but we can rereprogram what's left into something else, if they don't take it all." So that was the reality of things. AndAnd at times I just felt very frustrated when that would happen, because it's likeandand that's why I eventually decided to stop doing it because it It really caused me pain to not see something come to fruition, that I'd hoped it would
Murdock	
	II think, ((stutters)), ah, without realizing it. II've ((pauses)) somehow

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Murdock:

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developed the ability to...to talk to people and...and to communicate good

with them, ah, very well with them, easy almost in terms of identifying their requirements. And ... And, ah, because ... because of my military background and my...my previous assignments. I was able to put myself in their position. Ah, you know, if they started saying something was antiquated equipment, didn't work, I've been there and done that. I knew what they were talking about. So it beca... It was an easy process for me in the most part to be able to communicate. And in that communications. it wasn't that difficult for me to document the...the requirement. I think that was my strong point, being able to document the requirement. And that's made the comment that time that ... that my whyl presentation was believable. An, so ... Murdock: Then you left that world and in 1986 you found yourself in the systems acquisition world. PL 86-36/50 USC 3605 ((Smack)) Yes, an it was ((scrape)) the the other, the other end of the program build and budget where ((snap)) it was like an internal NSA police force. It was, ah... We were identified as SMOs: Systems Management Officers. Each of us had on the average of about 70 major. programs that we monitored for N Group. And, ah, our job was to basically make sure that the documentation was complete, ah, in accordance with NSAC 25-5, which was our acquisition, ah, bible, if you want. Ah, that they did a PBS1 that, you know, the developers completed a PBS2, that the system acquisition plan identified what they really needed and that they were in fact spending money as they went along along: those plans. Ah, if... If we found in our monitoring that programs were starting to have schedule slippages, ((smack)) cost overruns, or problems of that sort, we would call the the program managers to the table and we'd ask questions. "How can we help you?" "What's..." you know, we got the reputation of _of ((clacs)) being, ah, hatchet men but really we were there to ... to try to help ... move programs along and not ... not to kill them. Ah, there were times. when...when projects were really in deep trouble and that required, at, with ... with our ((crackle)) recommendations, the Seniors Review Group would meet, you know, at...at the top levels and...and make decisions. whether to continue the program or not. In your resume you you mention the fact that you brought heeded focus Murdock: on to-a multi-million dollar project that had been in acquisition and development stage for 10 years and suffered from serious cost overruns, schedule slips and postponed deliveries. Can you tell me a little bit about that? That was the ...Yeah, that...That was the, ah, WRANGLER ((sighs)) That... repository. Ah, it was being developed at the time and, ah, you know, it's, ah, WRANGLER is a very, very important tool for analysts and ... and, ah, and collection managers in that it. .it collects. as well consumes TOP SECRET//OCMINT//20020408 Page 23 of 36

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		So it's It's very
	important but unfortunately, it's a at that tir	
	effort in terms of hardware, ah	andand, ah, it waslt
	was suffering from, um, ah, ah, multiple use	
_	time, ah, response, ah, causing significant re	
L	agreed waste in dayslanment. Ab it was also	Ah, it was, you know,
	several years in development. Ah, it was sup phased development andand they had no	
	then, you know, they were already at the po	
	like, ah, ((snap)) I don't remember the exact	
	million dollar, ah, deficit already. There were	
	slippages. Ah, very obvious that it needed se	
	management, ah, oversight. And so I prese	
	program managers and developing, you kno	
	problems that they've had and the history, a ah, Mr. John Saadi, who was then DDPR an	
	guidance and continuing monitoring, ah, the	
	WRANGLER has, you know, gone on and	
	sincesince then.	PL 86-36/50 USC 3605
Murdock:	What other ((pause)) major things happened	when you were with system
	acquisition? That was a period of time, if I re	
	to 88, where we had money, we were starting	ng to lose our money?
	Ah, '86 to '88? ((Pause.)) Um. ((Pause.)) Ah remember any any specifics out I do reme in that same time frame that a lot ofof, ah, applied towards the narcotics problems. Co real need for us to to start looking into, ah, Counterterrorism followed along with that a was, you know, very significant, ah, change where we should start investing some of the the major cause for, ah, for for that that in because of that, you know, some of the progwere seen as less important than they they ah, we were directed. II, a matter of fact, towards that area, toward the narcotics effor was still a TDU agent. I remember that Conhuge amounts of money and said, basically, it. And And we struggled with that. That we tough target. And, ah, you know, II I do period that there was a significant change he program build and budget.	mber that, ah, I believe it was focus was starting to be ngress had identified that as a efforts to help deal with that little while later. And so there in direction, if you want, as to funds. Ah, I think that was efocusing, you know. And grams that we previously had y previously were. And and ah, that first the first push t, ah, started when when I gress levied money, gave us fix it. Do what you can to fix was tough. It's It still is a remember that as being the
Murdock:	Having worked both of those areas, system involved was the Director or the Deputy Director processes?	•
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	Well, ah, from my perspective, I mean it's not like I dealt with the Director or Deputy Director directly with the exception of when I did ((crackling)) present a WRANGLER briefing to Mr. John Saadi, the DDPR. That was the highest level within the Agency that I, you know, dealt directly with. Ufim, and And he was very involved. I mean, heI, you know, he. and and the Director. I mean, you know, they we. They were concerned. They wanted to make sure that money was being spent the way we we intended it to be spent. And And, ah, and And that it was monitored. And And it was, you know, ah Timely system acquisition was a was a great concern then just as it is now, you know. InIn that respect, it hasn't changed at all. The The difficulty is the changing target environment and the the capabilities of of, you know, our our enemies. Ah, you know, this The The technologies that have changed in the in the period of time that I've been here at the Agency is astounding, you you know. And And it's ((rustle)) getting, you know, and and it was rapidly changing back then as well. ((Click.)) Ah, there ((faint smack)) was always a continuing, and still is in my opinion, battle between COMINT and ELINT. Ah, ELINT, ah, again I may be biased here because I love ELINT so much, but ELINT has always taken, ah, played second fiddle. Ah, it's During a time of crisis when our military is moving. ELINT is of paramount importance and everyone realizes that. You need to know what those radars are and what the shooters are andand how that's going to affect ourour missions and plans. But the minute that crisis dies down a little bit, then all the money is directed ((clicking)) back into the COMINT arena again. Ah, that was, ah, ((pause)) that a. a fact of nature. I mean, itit just, you know, and I don't really see that changing a lot today.
Murdock:	((Shuffling.)) II won't disagree with you. I ((pause)) and I don't think you'll ever win the war.
·	•No.••••• PL 86-36/50 USC 3605
Murdock:	Where ELINT ever becomes the master
	We We ELINT people have a saying ELINT kills and COMINT
	lies.
Murdock:	
` ·	Yes, ah, ((pause/smack)) a very nice gentleman named (8% called me into his office one day when I was still working in. And he asked me if I'd consider being a branch chief in in actually. And, ah, it was an opportunity that As he described it, it was, ah, as a branch chief in charge of the, what they called the WRANGLER extensions extensions to WRANGLER in terms of analysis tools. Ah, of course, II jumped at it. I found out that the real reason a little later. I told me that the real reason he wanted to bring me down there was, one his branch chief was leaving for another
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	job and two: he wanted meto get me out of where I was a SMO
	continually asking questions about WRANGLER and the other tools. ((He
	laughs.)) I wasI was getting to be a pain in his backside. But, at any
	event, the, ah, the job was a great job. It is was a branch chief in charge
	of, ah, IIthe number escapes me, but I think it was between 9 and 9
	and 12 individuals made made up of both contractors and NSA civilians.
	· · · · · · · · · · · · · · · · · · ·
	tools to your major processing centers. Ah, one of the, ah,
	theThe most important tools, that we were developing was
	correlation tool. It would take intercepts and correlate those to
	where you could plot those, ah, on a map and identify. on
	any any map. It was The The correlator at time was a tool
	called . It evolved into, and and and let me back up a little
	And we would take the software, that correlator, and integrate it in
	with a, ahah, SUNaa mixture of SUN hardware, ah, and deploy the
	combination of those two things to the the, you know, analytical centers.
	The ah, correlation algorithm, ah, eventually evolved into
	whatinto a tool that is now called and it's being used in the
	operation environment at the Office of Naval Intelligence and in
	mally offices here at NSA. Ah. ((pause)) and we, ah, when we were
	evolving that tool, as luck would have it, itit, ah, wewewe, that's
	then, ah, DESERT SHIELD and DESERT STORM first started up.
PL 86-36/50 USC 3605	AndAnd that's when we came into our own, really, because, ah, the
	correlation tool ah, worked well but it was slow at
	the lat the time. It would take a couple of hours to lito really, ah, be able
	to produce a, ah, a map of what was ininin any geographical area
	So a lot of the work that we did went into
	· speeding up the tool and at the same time refining its accuracy in terms of,
	ah, you know, the that it it could document
	Um, I had a great team ofof programmers, ah, whowho were very
	successful in doing that. And, ah, and we were providing daily updates to
	the USS Eisenhower and , and the fleets that were sailing into the Persian
	· · · · · · · · · · · · · · · · · · ·
	Gulf were given them upah, updates every three hours. Ah, it was a
	very rewarding time in my life that was, you know, II worked as branch
	chief for five years. Uhink my main role was was to interact with the
	customer, most of which were military. ((Smack.)) So I would travel to
	theto the bases, identify what their current method of operations were
	and what their needs were and identify ways that we could help them in
	terms of, ah, integrating different capabilities in Linto the, ahah, the
	COMthe correlator and the mapping tool. That ((pause)), the
	integration of the software and the mapping toolwe used
	mapping tool at the timethe integration of and into
	idea where they come up with these names, but ((he chuckles)), but at any
	rateAh, and again we were quite successful in deploying that to, ahah,
	BerField Station Berlin, ah, Hawaii, JICPAC, um, several military
	•

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	installations that were doinganalysis at the time, as well a providing updates to the, ah, task force in the Persian Gulf. ((Paismack.)) Because of the military crisis, like I said before, funding there. Ah, you know, weWe had lots of money to do really goo Ah, II've never had, ah, such a great experience as a branch any supervisory position as I d d in thatthat role.	use; was d things.	
Murdock:	When I think ofthe Air Force first service that comes to my mind: the Navy second; the Army to then of course the Marine Corps, kind of with the Navy but sometheir own. DESERT SHIELD/DESERT STORM was, first and for an air war.	hird; and times on	USC 3605
·	·Yes		
Murdock:	Were the Air Force requirements very much different for the air p the war than the Army requirements for the ground portion of the you have to jump through different hoops to to satisfy those requirements in a real-time world?		
	Yes, ah, to some extent. And ((rustle)) the The main emphasis	for	•

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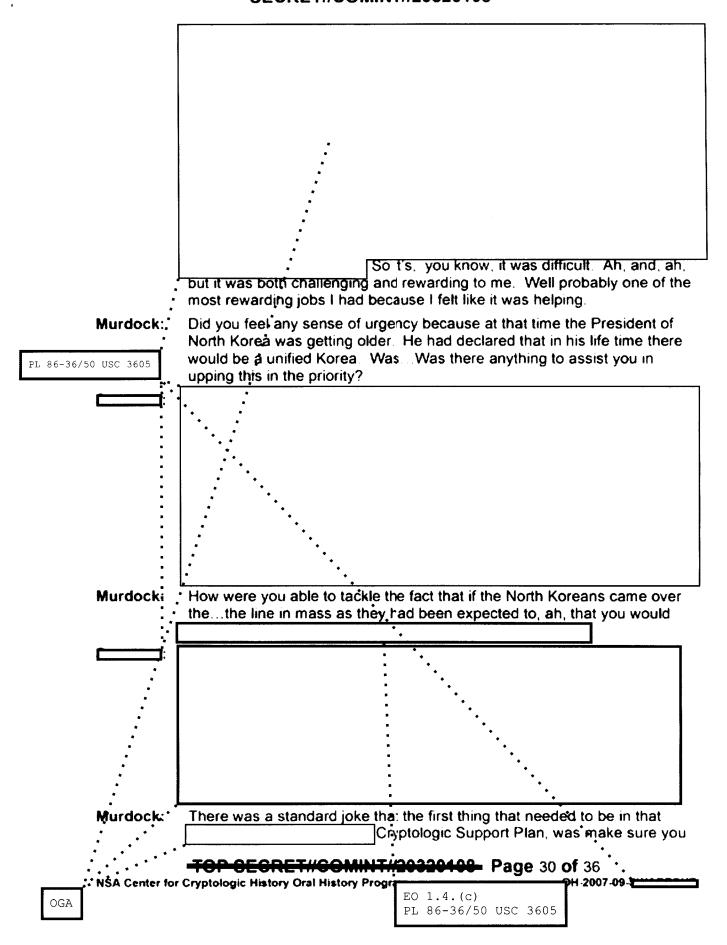
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· .	
Murdock:	And you were there for five years you said?
; .	Five years, yes
Murdock:	And then you decided to jump and go work for Support to Military Operations?
	Yes. PL 86-36/50 USC 3605
Murdock:	Was that because of your coordination with the military forces during the war or you just ((click)) needec a change of pace?
	A combination of things. II. I didn't really know what all was involved that that was in I didn't really know what all was involved in that job until I got there, because it. It was a, ah, senior ((shuffling)) staff job. Um, but as it turned out, it was exactly what the name implies; support to military operations for whatever they needed. A large part of what I did in that job was actually working, ah, with our forces in in Korea. Ah, for a, ah, specifically what what I did was, um, in helping to identify theah, prepare, update if you want, the cryptologic support plan for our forces in Korea, we had to go out andand renew our efforts to identify what their missions were, you know. How they interacted with each other. Ah, andand identify ways that we could support them. If the flag were to go up in Korea, where the North Koreans were to come across the river, then, you know, the question was how can we support them withwith
OGA	intelligence? You know, what do they need from us?
Mardock:	
	exactly. Ah so I spent the better part of, I think I was out there like almost 10 weeks. I visited Seoul. A good part of my journey was in Seoul then I went to Yokota and to, ah, Okinawa and basically met with all the the tactical commanders to identify what their missions were first. And then just, sit down in discussions with them and, you know, how can we help you? You know? What data do you need from us? Do you. Do you know what databases we have at NSA? Do you. Do you know who to go to? Do, you know, and, and then, you know? Lots and lots of exchanges and, and then just coming back and, and crunching those with, with the other members of the lot help, ah, make revisions to the cryptologic support plan specifically.
Murdock:	Were you forced to then have a very close relationship with
	Ah, yes. staff, ah, we were, ((smack)) ah, ah, inin touch with all the requirements, really. And and trying to and sometimes, sometimes the requirements conflicted. I mean, ((pause)), youThe Peninsula of Korea is very complicated. You've got several different commands out there
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	had a new pair of Nikes because you'd be running down whatever highway was((laughter)) was available.
□ .	Yes, the terrain ininin, ah, South Korea was such that as youas you went south, ah, it felt like therethere were hills in which kind of funneled
	down and they felt that that was the point where we had to really make our
_	stand. Ah, it wasit was
	· · ·
	((Sniff.)) One of my successes -
L	in that, ah, 'lI think we eventually, and it wasn't just me We had
	aThere were a lot of people helping me then. I was only one of the
	people that was involved in that.
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I	So, ah, that's one ofah, when I came back, because I had previously worked
	budget, I knew there was always a lot of money floating around in current
	year funding. ((Snap.)) A gentleman named Lee Fernholz at
	theunfortunately he is no longer with us, butbut Lee wouldwas "the"
	expert on how much money did we currently have. And and to make a
	long story short, I, with permission from my: from my boss who was, ah,
	in, ah, l
	approached Lee and I identified this need. And I said, you know,
	everyone knew how important it was. And and Lee managed ((scratch))
	to come up with the money necessary to get these. these, ah, secure
	devices. And and they were delivered in like two months. It was
	unbelievable. ((He chuckles.)) Soso that really gave me a sense of satisfaction, the fact that, you know, I knew something got, you know,
	done. But, ah, I've always enjoyed working with the militaryI can speak
	military language. II'm comfortable dealing with the military. They, ah,
	you know, it'sit's, I think, one of my strong suits. ((Rustling.)) ⊈m going
	to miss it when I retire. ((He chuckles.))
Murdock:	Well that brings us to your fina assignment at NSA as a civilian, the Technical ELINT Analysis Cross Training Program
 :	Yes. Well having having been a branch chief in for five years
	and and realizing ((rustling)) that that was a very hard act to follow. 1 .1
	didn't want to be a manager anymore because I knew there's no way I
	could have as much fun being a manager as I had in that job. So Iah,
	you know, and promotions were slow and, you know, I really didn't care
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	nat much about promotions other than being able to take ((rustling ontinues)) care of my family, but I wanted to do something that was fund to me the fun thing about, ah, ELINT is doing ELINT analysis, what we call chasing those squiggly lines. Technical ELINT analysis of control of the con
Murdock:	Softlanding, unfortunately, um, was too good of a deal for anybody to pass of (acknowledgement)) and especially after three years of an intense program, you certainly had skills that the Agency should have wanted to let
	(Smack.)) The problem wasSo the question is why did I leave? The problem was ((he clears his throat)) the budget did not support the need or analytical tools in I had a SPARC-2 system sitting on my desk, and, you know, ah, at that time the process of converting the I had some of the files were so large, with a SPARC-2 I'd get half way through the program and my system would crash. And the, you know, Jim Sadler who was my boss and several people at that level were so frustrated that we ouldn't get any money to get larger systems - Jim actually, ah, stepped
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	someonehe couldn't get people promoted equipment in there. He was just frustrated.	((click)), h	ne couldn't ge e, at that time	-
	the Agency. The rest were military who came and everything was heading toward Denver, ah, I just kind of saw the writing on the wall, I the The element leader at the time, it wasn't hat I won't mention, came out one day when mulling this over in my mind, and she called a said, "I want to I want to just lay it out the w matter if you're the top ELINT analyst working looking for a, ahah, a 14 or", I was a 13 ste just isn't going to happen." And I I questione to do?" 'Well, you have to, ah, you know, be spend some time overseas." I said, "Well, I swhat else?" ((Crackling.)) "Well, you have to bi program build," I said, "Well, I did that. Whine is everything that was said, it was I'd allike But she said there's there's no hope fithree days of that my friend, the ((rustling)) coby and I said, "Here, take my resume." So the I'm still here. ((He laughs.))	it seemed think. I It Jim, it was I ((shuffle everyone the pay it is." So go the hotte pay it is." So work proposed for promotionsultant,	and came and like. And ((to and so and came) and (to as someone) was kind of the said, "It does signals, if time, "14 or a what do you are oversead gram budget." And the bottle it. And it woons. And so headhunter,	id left (ap)), I then else she eesn't you're a 15, it have os and ttem vas within came
Murdock:	Let me ask you some general questions.			:
Murdock:	Okay. There is operational ELINT and there's technology	ical ELIN	FPL 86-36	6/50 USC 3605
; ·	Yes.		·	•
Murdock:	What did you most enjoy and why?			•
•	((Pause; smack.)) Oh that's a hard question I TheThe satisfaction I got from technical EL pieces of a puzzle, ((stutter)) and looking at t reports I had finished at the end of the day, a my accomplishments for the day. But ((rustli that is putting all those parametrics together, enjoyed was putting all those parametrics together.	INT was person to the stack of	outting togeth of tapes and E physically m the real sen- ing that I real identifying n sociated with t. That was,	ner the ELINT neasure se in lly tot just , but and
Murdock:	You mean defeat it, not just blowing it up but magnetic means?	defeating	it through ele	et[o-
·	Yes. Absolutely, ((rustling)) whether it be jan techniques. Ah, from the operational ELINT didn't mention was that my naval reserve exp Agency employee. I was also a naval reserve	perspectiv perience -	ré, ah, one th while I was a	in -
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Group, ah, Baltimore ((shuffling)) 106, which we drilled right here at NSA. Ah, I was, I, you know, I became the, ah, the, ah, ELINT division chief and we had four teams of individuals that drilled down at ONI doing...actually on the watch floor, ah, supplementing the active duty guys down there. And, you know.

ELINT tells the commanders where those ... those threats are so that they can plan their missions. It's ... It's crucial. But you ... to do real operational ELINT you have to know what the parametric values are and so technical ELINT is also crucial. Ah, the two of them together and my opportunity to ... to use both of them together, both as a reservist and in some civilian jobs that I had at the Agency was ((pause)), I loved ... I love ... I loved it. It was great. The other things, the budget and all that, they were ... They were extra things thrown in, which gave me a lot of insight as to why and how the Agency operates as it does. What some of the difficulties are in the ... in getting things accomplished. Ah, and so it ... it ... it kind of, in that regard and while I didn't agree with everything, ah, I at least understood why things could or couldn't happen sometimes. And I think that's what allowed me to keep my sanity. ((He chuckles.))

Murdock:

In...in all your dealings with the military, your period of time at Berlin and working the CSP for Korea, did you have any cause to discuss ELINT with

PL 86-36/50 USC 3605

know. I, ah, ((he chuckles)) I had a hard time getting through a polygraph during that phase because of it, but I did. ((Laughter.)) We went on. But still, um, ((smack)) that's "that's really the only time as an Agency employee, ah, that I've...I've worked with Second, not Second Party, but, ah... Yeah, I worked with Second Party. Third Party, ah, I worked with, but not as an Agency employee. It's been since-live been a contractor, ((smack)) so...

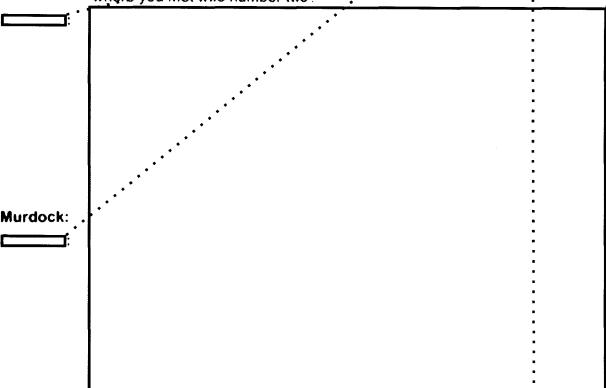
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We've got about 10 more minutes. Is there anything that I should have asked that I didn't ask? Is there anything that you want to capture for prosperity's sake on this audio recording? ((Pause)) You never told me where you met wife number two?



working then at the Agency. Ah, the only other thing that I would add is that I have...Ah, little did I know when I left upstate New York to come to NSA what I was getting into, but it has been... I've been very, very lucky Ah, you know, from ... from the time that I first, in boot camp, that I first went to classification and picked out of a book a rating that I wanted to be, not knowing anything about it other than it was a CT and it had to do with electronics and you needed a security clearance, that was the beginning of my whole start of the clearance and everything into NSA. And, ah, ((sniff)) because my Navy training is what caused NSA to call met. Um, I don't believe there's a place in the world where you can work and find different individual career tracks within the same organization that you can expand your knowledge and continually learn new things as ... as preat as what the Agency offers. Ah, ((smack)) so I...got...within two years I'm retiring for the final time. Retired from NSA, retired from the reserves. And I've been a contractor now for hine years and, ah, I'm...I'm ready to pull up stakes and ride my recumbent bicycle all over the place. ((Laughter.)) Ah, but no, it's litt's been a wonderful opportunity and I'm extremely grateful.

Murdock:

Okay. Well on the behalf of the Center for Cryptologic History and myself, I'd like to thank you very much for spending this time and sharing your stories with us. And I wish you and your wife the best of luck in your

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	retirement home				
—— ;.	Thank you. Thank you very much.				
Murdock:	Thank you very much SECRET//COMINT	The final class	sification of this tape will b		
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