Oral History Interview

NSA-OH-24-80

with

CTC1 Clyde W. Way

8 June 1980

M62, Sab 2, NSA

Interviewers: Mr. Henry Schorreck
Mr. William Gerhard
Mr. Henry Millington
Mr. Robert Farley

FARLEY: Today is the 8th of June 1980. Our interviewee is CTC1 Clyde W. Way, who served three tours aboard the Liberty and was the intercept supervisor during the cruise in the Mediterranean in June 1967 when the ship was attacked by Israeli military forces. The interview is taking place in M62, Sab 2, NSA. Interviewers: Mr. Henry Schorreck, Mr. William Gerhard, Mr. Henry Millington, and Bob Farley. Clyde Way will recount his experiences during the attack by the Israelis on the Liberty. The classification: TOP SECRET CODEWORD.

FARLEY: I want to thank you much for coming over here first of all.

WAY: Don't mind at all.

FARLEY: What we would like to do is again pick your brain any piece of information that you have we'd like to talk about.

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MILLINGTON: Change your mind.

FARLEY: Both Mr. Gerhard and Mr. Millington are charged with coming up with the SIGINT history of the Liberty.

WAY: Okay.

FARLEY: There are so many conflicts.

WAY: Yeah, I imagine.

FARLEY: We're trying to iron them out. You remember I handed you a copy of the questions. I'll just try and point this pretty much as here. There are many that you cannot answer.

WAY: True. I was going to mention that there is some that I have no idea as to what they are talking about. You know.

FARLEY: When, let's see, May-June of 1967 what sort of a job did you have?

WAY: I was supervisor of Section 3 of the NSDB 30 megs and above.

FARLEY: All aboard the Liberty?

WAY: Aboard the Liberty right. I worked the R&D, and the R&D lab and the NSDB.

FARLEY: Okay let's go back a little bit. How long were you on the Liberty?

WAY: I checked on in March 1966.

FARLEY: So you were one of the first aboard?

WAY: Right, they had made one cruise. They got back from that cruise, I checked on board the day they got back. I waited in Norfolk for them.

FARLEY: So the first cruise that you were on was the Ivory Coast cruise?

WAY: Right, we did go to the Ivory Coast.

FARLEY: What was the mission during that cruise?

WAY: Mostly my part of the mission was to collect the FDM, the voice transmissions and all from Africa, the West Coast or anywhere else in Africa that we could get. Plus the little fishing trawlers that we always saw, the Russian trawlers if we could get anything from them we did. We had, where I worked we did the ELINT satellite traffic also with the dish antenna, that was on the fore part of the ship. And it had the camera in there so we could possibly see the satellite as soon as it hit the horizon. We were tasked with picking it up and photographing if we could and tracking it all the way until we lost them. But that is mainly what my job was anyway.

FARLEY: When do you remember hearing about the orders to return to Rota or to go to Rota from the Ivory Coast?

WAY: We were in the Ivory Coast. I was on liberty and had got back about midnight, one o'clock something like that and heard that the Captain had sent a working

party, not a working party but a dungaree type to find every man on the ship. He wanted to leave at six sharp. We were heading North for Spain. Nobody knew why outside of the research spaces you go in and we found out that you had to go to the Med for the Six Day War. Or for the conflict that was building there in the Med. The Valdez, we were supposed to replace because she had busted a screw or something like that and we were to take her place because we were the closest ones to the Med with the capabilities we had for intercept.

FARLEY: So the Captain briefed you about the on-coming mission?

WAY: Well actually, he didn't brief me personally. It was when I got back down into research and asked around. I didn't see a message or anything, but they said a message came in directing us to go to Spain and this was the reason we were going. Now I don't know if somebody said we were directed to go and that we would find out later and they just put two and two together or not. I didn't see officially, but that is the understanding that we had. And that I think later there is a question about the conflict between the regular crew and the SIGINT. There was very hostile there for awhile because we had good rapport, a good rapport always except for that one time when we knew where we were going and what we were going to do and

they had no idea because we weren't, they weren't, the okay to tell them was not put out yet. So here the hostilities started. You know, we had a very good brawl you might call it in Rota when it came to a head, you know.

FARLEY: Is that the one that Ennes referred to in his book?

WAY: You know that I haven't read his book yet, I've checked all through North Carolina and Maryland at the book stores and I can't find it yet. I will be buying it as soon as I can, you know but a....

FARLEY: We'll loan you a copy if you don't have one.

WAY: Great, great, I'd love one because I hear my picture is in it.

FARLEY: Probably is, stretched out on the deck.

WAY: Yeah, the whole crew right there, yeah.

FARLEY: What is the purpose of stopping at Rota?

WAY: One thing we needed fuel. Take on supplies and pick up men. We let off a lot of the Spanish and French linguists, not a lot, I think we let off three or four and picked up a bunch of the Arab and the Israeli-Hebrew linguists and we told the crew we picked up three of the oceanographic specialists for water testing and depth and everything else like that in the Mediterranean because we hadn't been there yet.

FARLEY: Was there a Hebrew linguist among the group?

WAY: If we needed someone who could speak Hebrew, now I don't know for sure we had a man on board, I don't remember his name, I'll look at my list at home and see if I can think of it, that could speak seven languages. He could speak Hebrew, he was teaching himself.

FARLEY: Brooklynese Hebrew, do you think?

WAY: Beg your pardon.

FARLEY: Brooklynese Hebrew.

WAY: That type, yes, but he was very fluent in quite a few languages. He was, any time we got intercept in foreign languages we always called him because he was very good at it, but I do know that if, we were told that if we needed a Hebrew linguist just to call down there that they had an I brancher that could transcribe the tapes if we needed it.

FARLEY: Do you have any questions on that, do you want to pursue that?

MILLINGTON: Was this a military person?

WAY: The person I'm talking about, yes he was a military person.

GERHARD: I think we would like to have the name of that man if you had that.

WAY: I will if I can, I've got the list of everything.

GERHARD: I hope he's not one of the casualties.

WAY: No, I don't think he is.

MILLINGTON: Did he come aboard at Rota?

WAY: No, this man had been there the whole time, yeah, he taught himself Portuguese as a matter of fact.

FARLEY: And he stayed on board when you went to the Mediterranean?

WAY: As far as I can remember, yes.

SCHORRECK: What tapes would he have to transcribe?

WAY: He, I called him for any tapes I got, any voice tapes that I got I always called him. He was in the same section that I was in I Branch-wise. He was downstairs where the I Branchers did all of the transcribing, you know. And when he'd come up to say you got a [redacted] or you got well whatever, you know I took his word for it because he was good at what he did and we got over there he had been asked to go to a Hebrew, Hebrew school and he said, yeah he'd been asked to stay in, to reenlist, you know and they were going to send him to Hebrew school and he says no I don't, he didn't want it, he didn't need it, you know he spoke enough of it as it was, he didn't need any more languages so.

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GERHARD: I've gone over the intercept assignments that the Liberty had, I've got to the area of the operations, area 2 or 3 whatever, there is no mention of Israeli

tasking, obviously in your MNSB positions you might pick up Israeli UHF or VHF or something like that?

WAY: We had, right prior to the attack we had a voice tape going. The, I wasn't on watch, you know.

GERHARD: Was it directed against Israeli or....

WAY: When I got down there they said it was an Israeli voice communication link. Now there is a reference in there about a retransmittal type back at the Arab country, I don't know. The tape was on a seven inch reel, seven and one half inch reel and it was taken as soon as we lost all of the power and everything like that, it was taken off the recorder, put in an envelope and held. I don't know who held it or where they held it at, but this was since it was a possible Israeli intercept and this was happening at this time they wanted to keep it to send it back to NSA. Now whether it ever made it or what ever happened to it I don't know. I have no idea on that, but I do know that we had a voice intercept going at the time of the attack, prior to and during up until we lost all of the antennas and everything. I don't know what happened to it.

FARLEY: Good, we'll have to run it down.

Did you know any of the three civilians who came aboard, Bob Wilson, Blalock, Al Blue?

WAY: Other than the names, you know, being associated with them at the time no, I had none before. Going over the list of the people that were killed, wounded every now and then, I've got a scrap book that my mother made of all of the newspaper clippings and the names of the crew and things like that. My dad worked for a newspaper so he got them all for me. But I see the names every now and then you know I look for them like Sunday is a big day, it's June the 8th and it's every year on the 8th you know.

FARLEY: That's right, that's soon.

WAY: We still remember, you know but I'll go to the chapel every June 8th.

FARLEY: That's right that's the weekend isn't it or is it Monday?

WAY: Sunday.

FARLEY: Sunday, yeah.

Let's get the ship out of Rota. Do you know of any considerations or reasons that lead to the decision to deploy the Liberty to the Mediterranean?

WAY: Other than we put the word out to the crew that we were being sent to Israel because the Americans might be evacuated. The Sixth Fleet task force could do it, but they were going to send us because the task force was

somewhere else and we were more convenient, you know besides with only four 50 caliber machine guns what damage could we do. Right. Now we were told downstairs that we're going down because we were the closest AGTR there, or technical research there and we could get, you know, possible any intercept or whatever from those countries.

FARLEY: Was that they did mention technical intercepts.

WAY: They mentioned technical intercept, you know we were, I was, I myself was concentrating more towards Arab because we were against them, you know we were on the Israeli side so. That's debatable now.

FARLEY: So you were aware of, well let me say this another way, were you aware of any intelligence requirements which would have necessitated the use of a floating platform rather than?

WAY: Yes.

FARLEY: Okay.

WAY: Because we can get in close enough for the point to point transmissions. Maybe a task force, or not a task force, but an Army on the shore. If we're there in the national water we can still see close enough horizons twelve miles off and that's what the coast line goes. So you know we are close enough with the equipment we

had to intercept any point to point land line.

FARLEY: Okay, we are on route to the Mediterranean, can you describe the complement on board, the talents, the specialties of the people who were in the SIGINT operation?

WAY: We had it all, T branch, well upstairs we had where I was the voice links, I went 30 megs to 10750 megs or 10 Ks. That's NSDB we had, the horseshoe or what they copied the 1Tls, any type single channel transmission. Downstairs we had the more complicated communications plus all of the morse copiers and the I Branchers down there and the COMM section, the P&R Group, you know. And then the third deck down was the huge (Matten) room. The (Mat) and them were good, the equipment never went down long. But ELINT all of it, we could do it all. I feel.

FARLEY: Intercept operators or how many? Any idea?

WAY: A hundred CTs on a crew of three hundred.

FARLEY: How many linguists?

WAY: I would have to get out my records.

FARLEY: We don't need that for....

WAY: I'd say a rough guess would be maybe ten or twelve something like that, roughly.

FARLEY: What was the degree on competency of these people?

WAY: We were well versed, when I got on there I was a Seaman. By the time of the attack I had made Third, we had not a bunch of chiefs, we had a good, good thing where there weren't not many chiefs and a lot of indians instead of too many chiefs and not enough indians. But you know we had First, Seconds, and Thirds Seamans all working side by side together, you know. In my section there was myself a third class, a Second class and a Seaman in our section. I was supervisor only because I had made two cruises prior to that attack, the cruise on the attack. This was his first. So the Second Class militarily was in charge, professionally I was. So we, it was a good mixture all of the way around of all the groups and all of the branches.

FARLEY: What type documentation was picked up at Rota? Did you get any analysis aides or dictionaries or?

WAY: P&R, I believe got from what I understand, got most of the stuff. I don't really remember us getting a packet, you know there might have been in the second class that did all of the little paper work for when I come in on the watch to read, "Hey let's do this today or let's concentrate on this or whatever." He might have had a packet to break down and tell us what to do and all but

as far as seeing any of the information itself, no I didn't. I didn't see any.

FARLEY: Did you get any special briefing or orientation by the OPS Officer or anyone saying, "We're embarked on this mission"?

WAY: Lieutenant Bennett talked to us, you know and he's the one who told us, well he and Commander Lewis told us that to tell the crew that we were going down to help the Americans in case of evacuation from Israel. You know, there was no sweat because Israelis were on our sides and they were going to allow us to go in and get our Americans and get out you know in case they got in danger. You know, but those two, on watch, I don't remember them pulling all of us together and saying, "Okay, here it is, gang, here's the way we are going to do it." You know it was more of a casual type. You know, come in and say, hey gang, look, if anybody asks you here's what's happening.

FARLEY: Probably to the crew it was pretty much routine, huh?

WAY: Yes.

FARLEY: You'd done it before?

WAY: Right.

FARLEY: You talked about the collection tasking, what were the targets?

WAY: Actually anything really. I felt when we went down that way when if it's a six day war we didn't have anything really on the Arab-Israeli area, you know. If we could get anything great. It would be hard to know if it was actually Hebrew. I couldn't speak it, you know, or is it Israeli or anything, we'd just take most and call for the I branchers. But it was a whole new area for us. Anything we got we'd report because we hadn't got it before, all of it had been on the West Coast of Africa, now we were in a whole new environment for us. We just picked up everything.

GERHARD: A few months before the Liberty went into the Mediterranean, the Valdez had made a sweep through and they had picked up considerable VHF/UHF communications. I'd not seen anything in the record that suggests the technical data which the Valdez massed during its skirting of the Coast there was ever passed on to the Liberty. It might have been through the medium of NSA, I wouldn't know.

WAY: That could be. As far as I know the Valdez had already gotten out of the Med when we came in or she hadn't made it to Rota by the time we got there, one or the other. I don't know if what we brought on in Rota, meaning men and all, came from the Valdez, I don't.

Everybody assumed they came from NSA or Rota itself, the civilians from NSA, the military from Rota, you know. I don't know, I don't remember, we must have asked the military guys where they are from and I know they must have told us but you know you do that everytime you meet somebody, where are you from, you know. And it just goes right over your head, I don't know why we even ask any more. But as far as, I don't know, I don't know why we got anything from Valdez or not. I know we were upset that afterwards that we had to take its place.

GERHARD: I'm just not smart enough to read the mission of the Liberty and say some of this came from the Valdez and its mission came from NSA.

WAY: Right.

GERHARD: You don't recall anything from the Valdez (in past of who wrote it)?

WAY: Not at all, not at all.

FARLEY: Were there any unusual incidents during the voyage from Rota to your on station point, like the sighting of submarine periscopes or?

WAY: I saw the question in there is, I don't know anything, it's possible we could have photographed a whole item, but also a dolphin fin in a distance looks like a

periscope. I've noticed that on the ship I just got off of, you see a lot of things out there. As a matter of fact I just did three long tours in the Med on another ship which I didn't enjoy but I had to go.

FARLEY: Nerve-racking. Yeah.

WAY: Well this one had a lot more armament, I didn't mind. There was missiles and guns and everything on this one. But I, if we could have seen a submarine, I don't know that we did. CIC might have said, "Hey there's a submarine out there." As far as us intercepting anything from it, sonar would have got it and nowadays the ships now are a lot better in their collation with the DCM guys, with the OS's and CIC's and with the sonar techs and all, in that they are talking to each other whereas on the Liberty we didn't. We felt nobody knew or had the need to know what we know and then, now we found out that they know the same thing that we know, it is just that we know more about it. And we can help each other, it is just you have to know what degree to talk to them at. Now sonar, they might have called down, if they did they didn't call down where I was and mention it. If they contacted something I don't know, I didn't see one.

FARLEY: What was the designation, the official designation of

the SIGINT element aboard? Was it technical research or something or was it a division?

WAY: It was, let's see, AGTR, a technical research ship is mainly what they call it, USN855, USN855...what was their SIGINT?

FARLEY: Did you have a SIGINT?

WAY: Yeah, I'm trying to think of it.

FARLEY: It doesn't matter, I think we have that in documentation.

The next question, what type of reporting, were you familiar with the reporting aspect or are you collected from the past?

WAY: I collected and wrote up on 6 ply fanfold my intercept and then each day we had a Second Class Marvin Dodd, who is now a warrant officer somewhere, I think Hawaii, no anyway, he did the daily reporting from what the intercept had been the previous day. He did the regular reporting to send out to go to COMM and send out, but it took from ours.

GERHARD: This would be the Techsum that was?

WAY: Roughly yeah, yeah. I would put, if we had an FDM system up and I wrote it up and who it was, what it was, as best we could tell and everything like that, and he would take those and put them all together to go to COMM.

GERHARD: One part of your assignment out there was to switch over to wide band if you detected UARFDM, did you detect any while you were out there?

WAY: Not that I remember. What is the old saying, it didn't happen on my watch. We had the capabilities.

GERHARD: Would it have come off of your positions?

WAY: Yes, because we did the only FDM intercept where I was.

FARLEY: Any more on that, Bill?

Was there any material or raw data passed to NSA over and above what you passed upstairs for reporting?

WAY: We had a TRSSCOMM on the back end, the moon relay that we used to pass information every night. Other than that and our regular COMM gear down in the, where the O Branchers were.

FARLEY: What type intercept was that?

WAY: The, that's a good question. I know the O Branchers did most of it because they've got the sevens and all, but the TRSSCOMM, the moon relay, I didn't work in it. I don't even remember who did work in it, but I know that every night they used to pass the word to stand by go on level aft because TRSSCOMM was up and it was the moon relay and it was supposed to be going into Florida. Who took the tapes or put it on tapes who sent it to NSA from what we were told, I don't know if that's the

way it went or not. I don't know what they sent through that, I don't know if it was just test or what.

FARLEY: Any more on that, Bill?

GERHARD: Presumably it would have been traffic that was destined for forwarding back to NSA.

WAY: Right, and we know.

GERHARD: And in some cases it would have been techsum type.

WAY: Apparently it was quicker.

GERHARD: International ship and that sort of thing.

WAY: It was quicker than they said then the O Brancher because it just bounced right off, I don't know.

GERHARD: If I'm not mistaken TRSSCOMM wasn't working when you were off port side.

WAY: It worked in the Atlantic, but when we got into the Med.

GERHARD: You were having problems.

WAY: We had problems with it, so you know we kept saying we couldn't find the moon. We just, it was a good excuse.

FARLEY: It's up there someplace, huh?

WAY: They moved it when we moved in the Med, you know.

GERHARD: Your TRSSCOMM worked off the African coast?

WAY: Yes, from all indications we had it was working because we stood clear.

GERHARD: I think it was the Valdez that had problems with its TRSSCOMM, too.

WAY: Oh, really. Okay.

GERHARD: It's a beautiful concept. One that works.

WAY: Yeah.

FARLEY: When the vessel moved closer to the Israeli coast, was there any noticeable concern or tension among the SIGINTers because?

WAY: No, we weren't worried. The, there is a question in there that says, "Are we down there, we're by ourselves." We were informed that we had five minute air support, that's how quick they'd be with us. The Sixth Fleet was on alert knowing that we were down there, within five minutes we'd have air support. So you know we trusted them, we believed in them.

FARLEY: Now the question was, was there any concern that you were without escort and strictly on your own?

WAY: No, we knew we had four fifty caliber machine guns, we had some bars in case somebody wanted to board we could fight them off until the planes got there.

GERHARD: Machine guns would have been sufficient to repel mermaids and other stuff.

WAY: And King Neptune, yes, we'd already cross the equator so we weren't worried about him, but the bad thing about the fifty caliber machine guns--out of the four, one got half a round off and it jammed, the other three

didn't work at all, when it came time to use them, they all jammed.

SCHORRECK: The same guy did the work on those helicopters.

WAY: That, well I don't know. I think we lost all of our garnishment, we lost about six or seven guys in the gun mounts alone.

FARLEY: Clyde, earlier you mentioned a little hostility between the ship's crew and the SIGINT people; did that ease off?

WAY: Definitely. After the attack happened it was just like, almost old home week, everybody joined almost like arm and arm. Most of the people on the mess deck where we set up hospital were CTs. And we were all down there helping them. We found guys all over the ship, the different regs that had been shot, had been killed and everything like that and everybody just joined in together to help. We only had a third class corpsman and a chief corpsman and it was way more than they could handle. So everybody became doctors. I learned how to do a tracheotomy. I wouldn't do it now to save my neck, but that night we learned how to do tracheotomies because if you didn't the guy would die. So, okay we learned, we dressed wounds, we did stitches, anything we needed to do to help that doctor. But it

was like me as a CT SIGINT and a machinists mate who has no idea what goes on above main deck because he's always down below, but standing side by side cleaning a guy off. We just hung right in there.

FARLEY: The next question concerns just a little bit of that. Was the ship's, did the ship's crew ever suspect the mission of the SIGINT people?

WAY: Yeah. We were called spies. You always do, anytime you have a ship with a bunch of antennaes, a big dish that they know can move anywhere that it wants to go, a big TRSSCOMM that's a moon relay and then they got a big door down there that's got a cipher lock on it and nobody but us can get in it, they know something's going on. There is no way that you can hide it. What do you intercept in there? Nothing. What do you do? Nothing. You know right there you are telling a guy flat out, "Hey you're dumb." I think you're stupid enough not to know this, but they say yeah, yeah. But the good thing about it is that they accepted it. A guy just coming on there, it was hard for him to accept it, he'd say, "Well what do you do?", and finally you'd say, "Hey look, shut up, you're not going to find out." and they would, eventually. But they knew, yeah they knew we were doing something in there classified, CIA,

FBI, the only thing is that we didn't wear a trench coat.

FARLEY: Was NSA giving any support at all to the Liberty when you were en route to station?

WAY: I would imagine I don't, I was not at the point where I got to see all of the incoming traffic. We had Lieutenant, well Commander now, O'Connor who was my division officer at the time and Chief Chapman, my division chief, which see the incoming raw data or not raw data but messages and stuff and they would pass it down to that Marvin Dodd that I had mentioned a while ago and then we would get whatever we needed. We got information on special like the ELINT where a satellite was coming what frequency the beacon was on, how to break the classified frequencies and how to set them up to be ready for him. So we knew NSA was supporting and they had been doing it since I got on there so there was no reason for them to stop.

FARLEY: What was the approximate location of the vessel when you heard about the Arab-Israeli war starting, can you guess?

WAY: I don't know. I'll try to think of it this morning. You know I say well were they, no the war wasn't going on before we pulled out of Malta, they were in a big

conflict and then I got to think that by the time we got over there it was over, well maybe I don't know, it's...there's a six day war, was it prior to, after, during or what. They made it fast. Moshe used to do it. Moshe Dayan is a good, good man, he knows his war, he don't mess around.

FARLEY: Was there a direct communication channel between NSA and the Liberty?

WAY: Not that I know of.

FARLEY: What was the route, how did they communicate?

WAY: I, now this is going to be my idea of it, in Africa most of the stuff or when we were operating in Africa, most of the stuff we kept on board and brought back here to NSA when we pulled into Norfolk. I was going to be since I was supervisor of that crew, I was going to be one of the guys fortunate enough to come to NSA after that cruise to see where all of the information goes, who gets it and meet the people at the other end. Then we pulled into the Med. I don't remember how much if any that we dropped off in Rota. All that I can surmise is that in Rota we were talking with Rota or Naples or some military link like that, but I know there's a SECGRU in Naples, there's a SECGRU in Rota, so I figured that was who we were talking to, I don't know.

FARLEY: Talking about keeping the Captain informed; what was the channel, if you remember, when something, some warning or some piece of information was intercepted by your people, how was the Captain informed?

WAY: We had a straight line phone from right outside the O Branchers spaces straight to the bridge. And whoever the supervisor of the O Branchers was would talk to the Captain. As a matter of fact if I remember correctly, Lentini who's the only O Brancher that made it off, was on the phone to the Captain or to the bridge or something letting them know that we'd just gotten out on high com, our last chance for anybody to hear us that we were under attack, when the torpedo hit. And that's being half way out of the door, that's what saved him, from what I understand, but the Captain was down if not once a day every other day.

FARLEY: Oh he would come down?

WAY: Oh yeah, he would very frequently come down and he wouldn't just go into Commander Lewis' office and sit and talk, he would come in and talk with us. There was a good rapport between the Captain and the men on the ship. Everybody liked him, he was a good man. He cared about his crew and he'd go not only down there where we were but down where the boiler rooms were.

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He didn't mind getting messy and the guys knew that. He'd come in especially if we had a [redacted] he loved to come in and watch us and we loved it too because we had the Mickey Mouse earphones we could talk about him to each other without him hearing. No, but he was a very frequent guest down in the research spaces.

FARLEY: So he was kept currently informed on what was going on?

WAY: Oh yes, oh yes.

FARLEY: Did you happen to see a copy of the message from NSA to the ship on the 6th of June whereby NSA directed the Liberty to maintain a high state of readiness because of the unpredictability of UAR actions and to report by flash any threatening or suspicious actions, would you have seen anything like that?

WAY: No, not at all, no I don't think I would have.

FARLEY: How many times did the Liberty change its on-station position?

WAY: Now with that question do you mean where at this point and the Captain said go to lat-long here, lat-long here. I have no idea. I know we did keep lat-long down in research because I put it on every report that we sent out, wherever we intercepted something we put the lat-long on that message or that intercept. As far as knowing how many times we'd changed during that

course I don't know. The only thing I'd know to do it if it's possible to find it, the intercept for that period the lat-long should be on there.