

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY

NEW BRUNSWICK

AN INTERVIEW WITH CARL N. SHUSTER, JR.

FOR THE

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INTERVIEW CONDUCTED BY

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TRANSCRIPT BY

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G. Kurt Piehler: This begins an interview with Dr. Carl N. Shuster, Jr., on May 23, 1995, at Rutgers University in New Brunswick, New Jersey, with Kurt Piehler. Dr. Shuster was originally interviewed on November 6, 1994. I would like to resume by asking you about how you transferred from the infantry to the Army Air Force. Is there a story there?

Carl N. Shuster, Jr.: Well, yes and no. It's one of those things that just happened. When I went in the service, I went to Camp Croft, in South Carolina, Spartanburg, South Carolina, and I went down with one of my classmates, William Evans Smith, and we reported in, and there were a number of Rutgers men there. That seemed to be one of the places where the former ROTC officers, now second lieutenants, were sent. We were assigned to a training unit. It was a basic training center, where the recruits got their first infantry training. For about the first week we were there, we all took a battery of tests and we were all assigned to various schools. Signal School and Medical Officers' School are the two I remember most clearly. From there, as I said, after a week or two, an opening occurred to go to Fort Benning in Georgia to take a, I don't know how many weeks it was, but, several weeks long motor maintenance course and, after graduating, well, this is where the change over occurred, in essence. Bob Friedman, a classmate, and maybe Tom Kindre, but, I don't remember whether he was among this group or not, but, there were two or three of us that got interested in the paratroopers, who were training several fields across from where the motor training was occurring. So, we went over there, and talked to the people and whatnot, and felt that it might be interesting to join the paratroopers, or at least find out something about it, and then, I remember the one old, grizzly sergeant taking a look at me. In those days, I was much lighter in weight than I am now. He looked at me up and down and he says, "Lieutenant," he says, "we'll break you into a thousand little pieces," and I took him at his word, that that probably was true, that most of the paratroopers were short, stocky men and that six footers and over, particularly slender persons, weren't probably the physique to get into this extra activity, although I'm sure some did. Afterwards, we talked about it, and before we went our separate ways, we decided, well, one of the things that might be of interest, since we had our infantry background, would be to go into the Air Force and become pilots for transport ships full of the paratroopers, because our feeling was, well, if they had people who understood their mission, which an infantry officer should, that was better than a cadet trained principally, and probably entirely, with the Air Force outlook. That was what got us started in that and we all forgot about it. We went through Benning, I guess, in the Summer of '42. That fall, I was sent on cadre from Camp Croft, from the training center, to Fort Jackson, Columbia, South Carolina, to join the 100th Infantry Division and cadre. It was there that I was assigned as motor officer to the company headquarters and it was kind of interesting, that, at first, I was a little bit puzzled, because, at that time, I hadn't really thought much in terms of the structure of an infantry division. Some of my classmates were already regimental motor officers, and coming down to a company, it seems like quite a drop, but, in actuality, it turned out that company headquarters was the unit that serviced the general's staff, the corps of the administration of the division, including the commanding officers, so that, actually, it wound up to be a rather interesting assignment. The company had two branches, three branches, really, I guess what you'd call the housekeeping branch, the cooks, and orderlies, and things of that sort, the motor branch, and the police force, the MPs, and that was the function then, to service the headquarters. About April, in came orders cut transferring me to the Air Force and that came like a bolt out of the blue, because I had already forgotten it. I figured, "Nothing is happening." So, in essence, at that point, what could you do? The orders are cut. There's no point, at that point, in saying,

"Well, jeez, I wish you'd just leave me alone," because I probably had one of the better jobs that one could look for.

KP: You were very happy where you were.

CS: Oh, yes. I enjoyed it. It was quite a challenge and you're up there at the heart of things. Colonel Miller, who later became a general, he was, I forget the exact position, but, he was like the CO of the outfit, the executive director, ran the headquarters for the general. He organized a brisk walking section, hiking section. Every day, all of the officers of headquarters company got together and took off on a hike, and you got to meet the various branches, the S-2, the G-2, and G-3, and whatnot, divisions, and interfaced, then, with them, and that was quite an experience in itself. You learned a lot from that. Anyway, [I] reported to Nashville, took another battery of tests, and qualified for all three, bombardier, navigator, and pilot. I selected pilot, went into basic training for that, and was ultimately shipped to Spartanburg, South Carolina, where I washed out of pilot training, primarily because I wasn't reacting with the seat-of-my-pants type of behavior that is required at that level of training in the Stearman biplane. I was relying too much upon instruments, and, of course, my background was in science, and, I guess, as an undergraduate, my major was zoology, but, I had a whole commitment of sciences, and I don't know, even if I had not had that background, but that I would have been more mechanical rather than, I don't know what you call it, physical in my response to the training. So, in any case, the upshot of it was, I had a chance either to go back to the infantry or go on for further training. Well, at that point, I would have been reassigned to something else, and who knows what I would have wound up with, and the Air Force was interesting to me at that point, so, I elected to go on to navigation school. I went to navigation school, gunnery school, and all of it, and then, in pre-combat, I was assigned to a B-17 crew, and went overseas as part of a B-17 replacement crew, and the date of that I don't have, off hand. It would have been the Summer of, by then, probably about '44 and we would have started flying missions in the Fall of '44. The experiences that I had, and I referred to this before we went on sound, that I had just read this book, *Wings of Morning*, and the description there was largely from the enlisted man's viewpoint, of the trials and tribulations and, particularly, their training for combat, and they were in B-24s, which definitely are different than B-17s, so, there are a lot of differences in this, but, I don't recall that any of our officers had much concern, or, I won't say, "Fearful," 'cause that's not the right word, but, somehow or other, maybe it's my Presbyterian background, "You take what comes." It's ordained, so, it was a why-worry-about-it type of thing, but, I don't recall the level of worry that this author portrayed for that crew, which, ultimately, did wind up as a lead crew, and I wound up on a lead crew. Nevertheless, you obviously had a bunch of stage freight as the briefings came, and you saw where you were going, and, certainly, in flight, when you're being bombarded with flak, one gets extremely nervous, but, over and beyond that, on a flight completed, I don't recall ever having any real worries along the run. Now, I suppose that as you're successful in completing missions and it gets down to the point where you're nearing completion, then, each mission becomes, maybe, a little bit more exciting than the next, because you're hoping you can finish up, but, other than that, I don't remember any real times of distressful worrying about the missions themselves. They seemed to take care of themselves. It was a time, when we were flying, when the German Air Force was largely defeated. We did see the planes, particularly the new jet aircraft that the Germans had, but, despite the flak that some of them flew through from our formation, there was never any of them directly attacking the

formation that I was in. Our chief concern, therefore, was rockets from the ground and anti-aircraft, the flak batteries. So, that pretty much summarizes that aspect.

KP: When you initially signed up for the Air Force and decided to become a pilot, did you know how dangerous flying could be? Did you know how high the casualties were? Did you still have a romantic view of flying?

CS: Well, I didn't have a romantic view, I just hadn't ever experienced anything like that before, and, as I said, when Bob Friedman and I had talked about it, we rationalized one aspect of what could be done, that we might still be attached to the infantry, but, as the Air Force component that was flying the troops in. Sure, that was dangerous. That was about as dangerous as one can get, really, when you think about it, but, no, we weren't concerned about that, and I don't know why you shouldn't be, but, in those days, I don't recall really being all that concerned about combat. Whatever was going to happen was going to happen. There was nothing you could do about it. That, I think, was basically my attitude, and it's like anything else, as in sports, and you get butterflies before major games, and you do whatever you can, under the circumstances, and you come through it, and I don't think I viewed this anymore than a very serious game. I mean, it was obviously more than a game, and very serious, but, in terms of my approach to it and nervousness, it wasn't several echelons higher in intensity or anything. It was basically the same sort of thing. One of the things that occurs to me, and particularly in this period of time, when we've gone through a reliving of veterans recounting D-Day and everything else, I never was in a situation where I personally saw anyone killed. Certainly, I saw airplanes shot down, but, the killing part was impersonal, and, in reading what veterans have said, particularly on D-Day and others, those that were in hand-to-hand combat, or saw people die, were bitter and still have bitter memories about the fighting, and the enemy, and whatnot, and I think those of us who were divorced from that direct confrontation have an entirely different viewpoint. I don't hold any malice against the Germans, and, yet, I'm sure that these other people, their reflections are right on the mark. If your best friend is shot by the Germans, I can't see how you'd have any other feeling, and so, I've never experienced that sort of thing. Each one of us, obviously, has had a different experience and a different viewpoint and every one is understandable, when you step back and think about it, that you can have everything from utter contempt and madness to a sort of detached viewpoint that I'm sure many in the Air Force did. The only person that was hurt on any of the crews I had was in a mission we had over Berlin. It was maybe about our fourth or fifth mission, sixth mission, somewhere early in our combat flights, and I well remember flying over an approach. We came in from the west, and I looked down, and I always carried binoculars with me, and I was always interested in what was happening on the ground. I'm sure that was due to my infantry training, because I was always interested in the autobahns, and the tank traffic, and that sort of thing, and I always logged that in. There are very few navigators that paid that much attention to what was happening on the ground. In any case, as we were approaching Berlin, this time, it was either this or another mission, we went there twice, and so, I may be confused, now, without going back to look at my actual notes, there was a square platform. Every once in a while, there was a salvo of flashes there, and they were firing, what I guess had to be rockets, straight up at the formations as they came across, and they fired a salvo at the formation ahead of us and another salvo at the formation that flew just behind us. So, apparently, they just had a few seconds in which to load and we were just the lucky ones to go through that. I don't remember whether it hit anyone, but, as we were passing the target, after

having dropped our bombs, we did catch several bursts of flak that hit all parts of the plane, and it was from below, and, up front, where I was, I happened to sit on it. We had flak jackets that we used to wear, but, commonly, we never wore them. We would put them on the floor, because, if you were going to get a burst from the side, most likely, it would hit you in the head and that would be it anyway, but, [in the case of] a burst from the bottom, you could ward that off. So, we always sat on our flak suits.

KP: Who told your crew to take off your flak jackets and sit on them?

CS: Well, we never put them on to get into the plane. We just took them with us and the idea was that you'd put the flak suit on when you got into the combat zone. You wouldn't put any of this stuff on prior to that and we never bothered doing that.

KP: Did any other crews do this?

CS: Well, some did, I'm sure. Each one had their own way of figuring out how they were going to survive, [laughter] and, to me, it seemed the simplest thing, since I was in the nose compartment at the navigator's table, that these flak suits were bulky, and I just put it on the floor and sat on it. Well, I know our bombardier did the same thing. So, that's the way we went up to that. Anyway, as we emerged from the target area, we did catch this heavy flak. The Plexiglas in the nose and my flak suit got hit from underneath. There was a piece of shrapnel an inch-and-a-half long that hit [my suit], but, it was pretty much spent by the time it hit us, but, it hit us enough that, in the pilot's compartment, it burst a hole up there and showered them with Plexiglas, and there was hardly a place in the plane that didn't have a hole in it. The one man that got hit was kneeling down in the gunner's position, in the waist, and a piece of flak came through and hit the calf of his leg, the front part, the back part, and then, went through the back part and the front part of his thigh. It was about like someone took an apple corer and just punched right through, and, fortunately, it hit no major nerves, no major blood vessels, no bones, but, obviously, it was very painful. Our bombardier was a mortician in private life and he was sort of our first aid man for the crew. So, he grabbed an oxygen mask and bottle and ran back to help the man and put a tourniquet on. We came back, left the formation as we went over the North Sea, and notified the base that we had a wounded man on board. At that point, obviously, we didn't know how serious it was. Because the tourniquet's stopping the flow of blood, there was no need to do anything further. I think [that] he probably administered morphine and whatever else was required, but, we did need to radio in our expected time of arrival, because we were not coming in with the main group of bombers from our air base. I recall the pilot wanting an ETA, and I'm looking at my log and wondering, because, during this thing, I hadn't kept as accurate log as I probably would have had there not been that level of excitement, and so, at this point, I didn't have an estimated air speed. I knew the direction we were flying [in], certainly, and what I did was to look down at the ocean level, and I could see which way the waves were moving, so, I figured, "Okay, that's the way the wind is blowing and to produce that level of whitecaps, it must be, whatever it was." At that time, I always had a little sheet, sort of a piloting sheet. You could estimate the wind speed from that. Well, we already knew what the wind speed was predicted to be, and proved to be, as we were flying. So, I had those two pieces of data and the fact that we had just crossed over into the North Sea, so, I had a geographical checkpoint, and, by drawing a line from there to the base, and taking an average of the sea level

direction, and wind speed, and the altitude, the wind speed, I halved it, figuring, "Well, we've got to go down, so that we'll go down through that entire air column, and, regardless, it should average out." Well, I'll be darned if it didn't pan out. We got back to the air base just at the time when the ambulance was circling the field to get into a position to receive us and I think I missed, all the way from leaving Germany at the sea coast, by less than two minutes, which is pretty good seat-of-the-pants navigation, considering that we did descend all the way to sea level before we got to the base. So, that was about the only time I really did any good navigation as a dead reckoning navigator in a wing crew. Later on, maybe because of this and other reasons, I got sent to Radar School for training to join a lead crew, and so, I did that, but, in the interim, between this mission over Berlin in December, we flew two missions during the time of the Bulge. As is customary, when we were flying over Belgium, we were climbing to combat altitude. We were probably anywhere from 15,000 to 20,000 feet at that time and, many times, we were near 30,000 feet when we reached bombing altitude, so that when we crossed into the combat zone, we would be up at bombing altitude, which is much higher than we were when we were cruising across Belgium. Well, here we were, not much further beyond Antwerp, and all hell breaks loose. There's flak all over the place, and the natural inclination is, since we had no inkling of what was happening, that our own forces were firing at us. For some reason or other, they were spooked and our own forces were shooting at us, which was not a comfortable feeling at all, and the fact that we could not see the ground at all added to our fears. It was completely blanked. As you remember, that's the story of the Bulge. The Germans had relied upon the cover of clouds to prevent the Air Force, particularly the fire planes, and the dive bombers, and that type of activity, from interceding and helping the ground troops at that point, but, the bombers were capable of flying above all of this and getting to targets that may or may not be open further into Germany, particularly the marshaling yards, and the various factories, oil refineries, air fields, things of that sort, which we were bombing at that time. In any case, that was rather startling. The mission itself was no more startling than that. In fact, that was the worst incident in the whole mission, I guess. I don't remember, at this point, without consulting my notes, and I did keep, not extensive notes, but, I did keep notes on all of the missions.

KP: Were you keeping notes at the time?

CS: At the time. Oh, yes. I'd come back, and I'd write them down, and the times, and what we saw, and things of that sort, and we may have flown the next day, but, certainly within the next couple of days, we flew again, and, by golly, we were routed over the exact same place that we got shot at in the previous mission, and I'll be darned if we didn't get shot at again. This time, the lead crew, it was either this first time or the second time, the lead plane in the whole bomber stream got shot down and we lost a brigadier general.

KP: When was this?

CS: In this mission. This is the Eighth Air Force, Third Bomb Division. I was with the 95th Bomb Group, but, again, you had to question, particularly here, "What was the rationale for sending us over this area where we were being shot at?" Later on, when we found that, indeed, it was the Germans who had been shooting at us, because they had invaded territory that was once held by the Americans, and, therefore, were the ones that were shooting at us, but, the only rationale you could place on that, thinking about it later on, was, well, certainly, the ground

troops would be encouraged if they knew that our bombers were out, and could hear them, and know they were out. The only rationale for sending us down a corridor where everyone, by that second mission, should have known that we were going to get shot at and lose a plane or two, which we did, the only rationale that you could have is, it was for the morale of the ground troops. Now, that's legitimate, but, if it were done for any other reason, I think that was a miscalculation on the part of the high command. As I told you, from this book, *Wings of Morning*, there's another instance there of command misjudgment or miscalculation, as to the effects, but, in the heat of battle, you really can't tell exactly how each and every person is going to respond and the results of it, so that there are as many good decisions made as, I'm sure, bad decisions, and I think my career, in essence, or what I saw from the war, reflected that. There were times when we did great things and other times that we either got spooked by too much flak in the area, and dropped our bombs ahead of time, and got out of there before we should have, and, therefore, didn't hit the target and whatnot. What I can say is, though, when I joined the lead crew, our crew had one of the best records of any crew at the base, and I think, probably, that would have held true all through the 300 missions of the bomb group. I also felt, afterwards, that in reflecting on our good record, that had we been a crew at the beginning of the war, we'd have been a dead crew, because we were good and serious in carrying out our missions. Our navigator was the son of a major general, a very dedicated, excellent navigator. This was when I was a radar navigator. Our pilot was one of those types of men who can handle a big plane and he was a calm, cool, and collected type, which is necessary in a pilot in a lead plane, because every little motion that he puts his plane into exaggerates what happens in the wing crews. So, if he puts in a major change when you're approaching a target, he's going to throw the whole formation out of whack and disrupt not only the defense of the formation, if fighter planes happened to jump you, if you disperse your command from a tight formation, that's bad, but, more importantly, on the bomb run, if you get them spread out, you're not going to have a tight bomb pattern, and so, it demands a cool, calm, excellent pilot, a superior pilot. Both the pilot and the navigator, in this case, went on and retired as colonels in the regular Air Force, both dedicated men. Our bombardier was good. I think that our pilot and navigator were outstanding. I would rate myself, as a radar navigator, and our bombardier as good to excellent, but, not at that superior category that our navigator and pilot were, and all the rest of the crew were well-trained. In fact, Bob Newman, our pilot, in combat training, in the States, prior to when I joined the crew, had every man in the crew sit as co-pilot and take the controls of the plane, and he, in essence, basically instructed everyone, including the tail gunner, on how to fly the plane, on how to land the plane. I've never heard of any other crew where anyone in the plane, at that level, practically, could have taken over and, in an emergency, at least perform enough to get us back to base or wherever, so that it was a well-trained crew. There's no doubt about it.

KP: How did this crew compare to your first crew?

CS: The other crew was an excellent crew, but, we didn't have that level of expertise. Certainly, in the pilot, we had a good pilot, but, I would not rate him as superior.

KP: What was your first pilot's background?

CS: He was a New Jersey boy. I don't believe that he was a college graduate, but, at this point, I can't tell. Many of the people were young. They were younger than I was and I had just

graduated from college. In fact, this Bob Newman, who was the captain of our lead crew, he was about nineteen when he came overseas and quickly advanced from second to first lieutenant. When I joined the crew, he was a captain. That's how fast he advanced. You don't normally advance at that rapidity. His crew came over after my crew, and, in my crew, both the co-pilot and the pilot made their silver wings, but, that's as far as they went, and they flew their entire missions. This fellow made his captaincy before he'd halfway completed his tour of duty, so to speak, so that he was recognized as one of the up and coming pilots for lead planes. In fact, on several of our missions, we led not only our wing, but, on one mission, we led the Eighth Air Force out. So, all of the bombers were following us from our air force. That mission, though, was a food mission to Holland, so, we couldn't count that as leading the troops to combat, so to speak, because we were dropping food on Holland.

KP: Was this in April of 1945?

CS: That was near the end, yes. Yes, that was quite near the end and that was a picturesque thing itself, because we flew at 200 feet and lower, and we were dropping bags of flour out. I think that's what our mission for our bomb group was, was to drop flour, and I have pictures that I took, because I was in the radar compartment, which is back where the radioman is. You could open up a slot in the floor and take pictures through the floor and I still have pictures at home, somewhere, of our dropping these bags of flour on to Holland and missing these nice, big, white crosses, muslin, I guess, that they had taped on to the fields. I well remember, in one of these pictures, it looked as though the bag of flour was hurtling and going to go straight down the chimney of a nearby house, [laughter] which, obviously, was not the intended target, and, hopefully, it missed it, but, from the photograph, it looked like it was dead on center to do a job on that house. At one point, we flew so low that we spooked a herd of cattle and, in the field next to it, there was a farmer who actually laid down on the ground. Well, when a whole flight of B-17s comes over at 100 to 200 feet altitude, I guess it's pretty deafening and scary, because there would have been at least thirty-six planes, if not more, directly flying over him within the space of just a couple of seconds at the most. At one point, our altimeter was reading zero, which could not be the case, because, even though Holland, a lot of it was below the sea level, there's no way you could be flying and still be below sea level, but, some of the instruments were indicating sea level, and, indeed, someone reported that they had to actually climb up to escape Holland, that they had to get up above the dikes. I think that probably, again, you're approaching the dikes so fast and your prospective is such that you were probably going to well clear them, but, just to be safe, you probably pulled up and went over a little bit higher. Things happened so fast and it becomes so illusionary, sometimes, that it's hard to say exactly what did happen, and so, they felt they would have slammed into the dikes had they not pulled up. That might have been the case, because, as I say, even on a mission like that, where I think we lost only one plane to antiaircraft or ground fire, they are still anxious moments and who knows exactly what the complete story was?

KP: Going back a bit, you went to Spartanburg for your pilots' training.

CS: No, wait a minute, Spartanburg was where we were training troops. It was Orangeburg.

KP: Okay, Orangeburg.



CS: Orangeburg, South Carolina, which was near Columbia, near the 100th Infantry Division. Yes, so, there were three bases in South Carolina that I was at. Spartanburg was where I first reported in and from where I was detailed to motor school. From there, ultimately, I went to Fort Jackson, on cadre to the 100th Infantry Division, to the Air Force, and then, ultimately, back to Orangeburg, South Carolina, for pilots' training and training on the Stearmans, the biplane.

KP: How long were you in pilots' training?

CS: About halfway through. I had enough time logged in, over thirty-five hours or so, that I could have, after the war, pursued it and probably got a pilot's license with only a few more hours, because I had all of the navigational training, all of the instrument training, everything that would be required to fly a Piper Cub or one of these small planes, but, I decided to let well enough alone. I'd had that experience. I knew what it was like. Actually, the basic reason why I washed out was because, they said, of this mechanical aspect of flying, reacting after the fact, in a sense. When you're using instruments, it's almost too late to make whatever corrections you have to do. You have to know instinctively, from the seat-of-the-pants type of flying, but, on this particular day, it was the second time I was to shoot landings. We came back to the main field, and so, my instructor was down on the field, at the control tower, watching me. Now, I'd take off and get up to circle the field in the regular pattern, and, as I'm coming on the downward leg, I'm joined by two cadets who had done a cross-country flight, and they came in, one on each side of me, and I think that was typical behavior of cadets, okay. Here's a guy who's another cadet, as far as they're concerned, just beginning his flight training. They'd already been cross-country and whatnot, so, they were weeks ahead in training, and, I guess, they'd like to haze them, [in] a way, because that's basically what it was. Anyway, they came in alongside of me. Well, we came down, made a turn to the left, and another quick turn to line up the field and come in. So, the one plane came in and landed before me, and the other plane was on the outside of me, and he was landing alongside of me. Well, as I came in to land, the plane that had landed before me cut across in front of me, and, here, I'm coming down, landing, and there's a plane in front of me. Now, I don't know whether, at that point, he realized what was happening or not, but, I sure in the heck realized what was happening, and so, what I did was, keep the nose of the plane down, and threw the throttle wide open, and just before I got to him, I yanked back, and went hopping over him, and came down, and hit the runway, but, I had overcorrected. So, I came down on one wing tip and screwed about six inches off of that, shaved it off, and I overcorrected, and came down, and shaved off another six or more inches on the other lower wing, and then, I took off, and came around, and landed satisfactory. At that point, I came on in and the instructor reamed me out for not staying on the ground when I had already landed, that I should have stayed on the ground, and then, gone around again. That was the procedure you would have seen, but, at that point, I was trying to get away from all of this, and it didn't occur to me that, maybe, I had enough runway left that I could have stopped and come in immediately, rather than going around the field and trying to land again, and come in, because the wing could have been damaged to such an extent that it could have been more of a disaster than that little fracas. That was basically where they said, "Okay," he said, "for your own good, we'll wash you out," and I agreed with him, that it was, at that point, obvious that I would not have succeeded in a faster plane. I could have flown that plane all right.

KP: That was fine?

CS: That was fine, but, the next plane, I forget what it was, an AT-6 or something, was one that killed a lot of the young pilots, because it was a fast, souped up plane and it was crash prone, in the sense that if you didn't fly it meticulously and right on the money, it was prone to have accidents. I'm certain that if I had gotten that far, that I would have had problems if I hadn't learned to fly by the seat of my pants by then, which I doubt I would have.

KP: How many people washed out of your class? Do you have any idea?

CS: No, I do not know. In my particular flight, I may have been the only one, yes.

KP: Out of how many?

CS: In the flight? Oh, maybe upwards of twenty. We were in the classrooms and, I guess, maybe, fifteen, twenty, twenty-five. I don't know the exact number, but, you see, half of your training was in school, classroom situations and whatever, at that time, the educational system in the country had thought was the optimum. I'm sure the Air Force was following the same procedure, and so, my recollection is, we had about twenty students in the class, and that would have obtained in all the classes I ever attended anywhere in training, even in motor school, twenty to thirty at the most, and maybe twenty-five was the ultimate, but, almost all of them seem to me to be the size of a classroom that one could expect as a civilian in high school or college, so that they were following a familiar educational pattern.

KP: You were used to the classroom atmosphere.

CS: Oh, yes, sure. In fact, it was largely repetitive in some senses, because, except for meteorology, and, of course, learning the Morse Code and transmitting the Morse Code were completely new experiences, but, meteorology was a science, and a very interesting one, and one that's been useful to me ever since, particularly when I went into oceanography. I at least understood that the oceanic currents and the atmospheric currents are basically one and the same thing, in the sense that they are all fluids revolving in relation to the spin of the Earth and other celestial impacts and influences. In basic training, I think we probably had some courses in mathematics sufficient to do simple problems in navigation and even pilots had to learn navigation. So, there was some duplication, but, the classroom was entirely old hat by then.

-----END OF SIDE ONE, TAPE ONE-----

KP: Were you disappointed that you could not be a pilot?

CS: Yes, I suppose one thinks so. It was just like when I was lent to the 100th Infantry Division and was assigned to the headquarters company immediately and here's my friends as regimental motor officers. You right away think, "Well, what's your opportunity for promotion? How influential can I be in this combat that we're headed for? Am I going to be a key player or a minor player? Where am I going to be in the total picture?" and everyone knew that, in the Air Force, unless you were a pilot, you did not advance as quickly, nor get the key positions. The

pilots ran the Air Force, basically. Yes, I think I was cognizant of that. I knew that, but, the choice then, from that, was either to go back to the infantry or stay with the Air Force, and I only had enough of a taste of it to realize what it was about. Well, part of the story that I haven't told, perhaps, in this is that, during World War I, my father was in the Navy, and although he was an enlisted man, a CPO, he actually taught navigation to the Naval officers assigned to the Brooklyn Naval Yard. What had happened was that he was sitting in the hallway, waiting for something to happen, and some officers came by, and they said, "We don't have anyone to teach us navigation." Well, Father was a graduate student at Columbia University, and, at the same time, had also been an instructor, and one of the things he was teaching was navigation at Columbia, and so, he heard them say, well, they needed someone to teach navigation, and so, he stood up and said, "I could teach it." Well, in those days, an enlisted man could not teach officers. In World War II, it was different. We had sergeants at the motor school, mechanics and all that, teaching us, as officers, how to repair a vehicle and whatnot, but, in those days, that was *verboden*. So, what Dad had to do was, on the days he taught this class, change into civilian clothes and teach it as a civilian, and, after he was done teaching, he would go back and put on his sailor's uniform. Ultimately, he became a chief petty officer, but, throughout all of this, he still had to go civilian when he taught the officers in navigation. [laughter] I had known that this is what my father had done in navigation. So, in fact, when I told him about it, he thought that was great and sent me a couple of books on navigation, so that I had a head start, really, going into navigation.

KP: How long was the navigation training class?

CS: Well, most of this training was in terms of weeks. Ten to fifteen weeks, seems to me, was the basic length of time, except maybe for gunnery school. I think that may have been just six weeks training, but, most of the other training, even the basic training for new recruits, all seemed to have, what, thirteen, eleven weeks, thirteen weeks, or whatever it was, and everything else was more or less pegged to that length of instruction, and I think, really, it was associated with the level at which they expected you to emerge as a trainee. I suspect that someone had figured out that upwards of fifteen weeks is enough to subject someone to before putting him out to see if they can do it for practical experience, so that there may have been some rationale in why all of these courses were of a certain length, but, not extensive length.

KP: How large was your navigation training class?

CS: About the same size as all of these classes, about twenty, twenty-five students. The total class may have been larger, but, the classroom situation, the flight, would have been smaller. In other words, the navigation school I went to, Selman Field at Monroe, Louisiana, when they graduated, they graduated several hundred students, but, they were divided. Like, the class I was in, we were all officers, student officers. There were no cadets. The cadets were in their own [group], and they were subdivided into classroom sizes, into flights, and I forget what they called the whole group, the training division, I don't know what it was, but, [it was] concurrent. They all graduated at the same time. There were several flights and there may have been even more than one officers' flight.

KP: How many men were there, approximately?

CS: How many men?

KP: Yes, in the training. You said that there were about twenty in the classrooms.

CS: Twenty, and there may have been upwards of six flights in a training group. Perhaps that's what they called it, a training group. I don't recall the nomenclature there. I have what amounted to a yearbook. So, I have the pictures of all [of] the people that came out in that class that I graduated in, so that it would be easy enough to ascertain how many were in the group and everything else, but, it did include the cadets as well as student officers. We had a couple of captains and we even had a warrant officer. So, we ranged all the way from warrant officers, second, first lieutenants, and a captain in our training group.

KP: What was the average age of the officers' training group?

CS: Most of the officers were at least my age, and the ones that were captain may have been a few years older, four years or so, but, yes, basically, we're talking in terms of men anywhere from twenty-one to twenty-five, twenty-six, that were in that training.

KP: What was the average age of the aviation cadets?

CS: They would have even been younger. Some of them might have even not gone to college, but, I think, perhaps, the majority of them had been those that had one or two years, maybe more, of college, but, I don't think that all of them had completed college by a long shot. They had qualified, on the examination, as showing they had mathematical and other skills, depth perception. Well, they went through a whole battery of tests to place in the different schools and, in the case of the cadets, there was little or no choice, I would imagine. They got put where their tests showed that their aptitudes fit 'em best, whereas the student officers did have a choice, which is why mine, perhaps, ended up the way it did. It was a poor choice, but, that's hindsight, but, they let me do it anyway.

KP: Did you get the sense that they were trying to push people through?

CS: Yes, in the sense that this was still '43 when I started in this training, and I forget exactly when, because, as I said, I didn't fly until the later half of the war. I don't remember when the bombers did actually start flying. They may have been flying after I got in the training, but, certainly not before. That's right, they would have wanted to keep people going, because, certainly in the beginning, they were losing enough crews that, at one point, I'm sure their concern was for recruitment. I don't think they would have sacrificed what they believed was the basic amount of training, but, on the other hand, I don't think they would have stalled around for sure. That would not have happened anymore than the normal sort of thing. You'd finish up one series of school, and then, you might be around for a week or so before reassignment, but, that's because another school, or another vacancy, hadn't opened up. The logistics of that sort of thing had not been done. Normally, what happened in between these schools was that if something like that occurred, you got a few days leave time, which is always good for morale anyway, to complete a series of training, have a couple days [of] relaxation, and then, [jump] back into the

next phase, whatever it may be, so that it may have looked like it was a leisurely program, but, on the other hand, it was intensive while it lasted. The few days in between, when they were trying to fit you into the next echelon of training, was not that great. So, I suppose, if you look at all of the training I had and put all the interim times together, yes, it may have been three or four weeks, and you'll wonder at that, but, then, you've got to consider I went to motor school, gunnery school, navigation school, [and] pilot training, with intervals in between each of the levels of classes, so that it adds up. Three or four days, even, between each one quickly adds up.

[Tape Paused]

KP: How many men washed out of navigation training?

CS: I have no idea, actually. I would have surmised that the rate would have been relatively low, because these men were selected either at the cadet level or, otherwise, were selected people. They were selected from a physical and mental standpoint. I would be surprised if it was much more than five or ten percent, if even that high. Now, in my own experience, when I first started, this is interesting, I had no problems when I was flying in pilot training, but, when I started flying in the two-motor planes that they were using for navigation, I was violently sick, every mission. After about five or six weeks, it got to the point where there was, I'm sure, in the mind of the flight instructor, the head of the flight, concern that he'd probably wash me out because of this, 'cause you can't have a sick person on a plane. [laughter]

KP: Especially the navigator.

CS: Particularly a navigator. Well, I tried everything, no breakfast, a full breakfast, selected breakfast. Nothing seemed to work, until the flight where we were navigating by radio compass, and, this time, the instructor went along with me, the head instructor, the head of the flight, a first lieutenant, and he smoked the God awfullest, foul, black cigars that I've ever smelled in my life. Well, I was violently sick on that mission, performed satisfactorily, and I was never sick again, never sick again. No matter what I did, I never got sick, never even felt queasy again, and never have again in any kind of air flight. I never had seasickness, either. So, I don't know what the Dickens was in that black cigar, but, whatever it was, it snapped out whatever it was that did it, or, maybe, by that time, I was over and beyond the uneasiness of flying, because that's the first time I had flown without being at the controls, so to speak, and whatever situation it was, whether I was monitoring it subliminally or not, I don't know, but, in any case, I snapped out of it quickly, and, fortunately, I had performed well, despite all of this. He would lean over my shoulder and he was puffing this blue haze of smoke all over the place. I tell you it was something. [laughter]

KP: I have been told that flight training could be rather dangerous. In fact, you had a close call that ultimately led to your being washed out of pilots' school. How many accidents were there? Do you remember any other close calls?

CS: Yes. When I was in gunnery school, I was on sick call one morning, and I missed a flight, and the plane went down, killing all the gunnery trainees on it, and it was the same time that I might have been flying. Whether or not I would have been assigned to that specific ship or not, I

don't know. One of my Dad's former associates, Dr. Aaron (Baxed?), was an instructor. He was a mathematician. He was an instructor at the field and he wrote to my father and told my father that I had escaped death, that I would have been flying on that flight. I don't think so, but, it makes for a good story. So, there's a flight that went down, due to some mechanical problem, in this gunnery training. Part of it was flying in an aircraft, and shooting from an aircraft, and another aircraft would tow a banner, and you would shoot at that with .50 caliber bullets that [their] noses had been dipped in paint. So, you fired the ones that had red dipped noses on the bullets, and then, they would count the number of red, blue, green, whatever color that hit the target, and that's how you got scored. So, that was that one. The only other one that I recall was during pre-combat training at Sioux City, Iowa, and there were several planes lost at night and daytime. There were two things that we were practicing, primarily, flying at night, and that was dangerous, because, sometimes, you were flying independent missions, and, if you screwed up on the course that was laid out for you, your pre-flight plan, you could run, and did run, into each other. I only recall one close call, and I don't know that you would call it close, but, at least we were close enough to see the other plane, and then, the other thing you were practicing was flying in formation. I think it's the first time that the pilots had any experience or training in that and there were times when you would get into formation and, virtually, your wings overlapped in a respect. You're at different levels, sometimes, but, one of the accidents that did occur, one plane would get in a prop wash. The air stream from one plane would cause the plane to wiggle and the wing would flip up and hit the wing of another plane, and this was particularly more dangerous in combat, because of the way the planes were stacked in formation, and there were many things there besides prop wash, the flak or anything else that might have caused the miscalculation on the part of a pilot, or just a physical updraft that caused the plane to see-saw. Those two things, at night, the cross-country flying, there were a few accidents and planes down because of that, fewer planes, but, occasionally, a plane was lost in learning how to fly in combat close formation.

KP: What were the hardest and easiest parts of navigation?

CS: Well, for me, the easiest part of navigation was, if I could see the ground, I could do pilotage, because I liked maps. Again, that goes back to my infantry training. Even as cadets at Rutgers, we learned to read maps and understand maps, and, basically, we were using maps at about the same scale as our pilotage maps, and I preferred doing that than dead reckoning. Dead reckoning was mathematics all the way. You used your instruments. In other words, if you couldn't see the ground, the only way you could navigate was by dead reckoning, and so, you always had to do a certain amount of that, and so, I would log in dead reckoning points as well as pilotage information, and I would say that, for me, I preferred to do the pilotage. Therefore, I guess I viewed the dead reckoning as more onerous or less exciting, because, the other way, you could see what you were doing. With the other, you were flying blind, in the sense that you were relying strictly upon your calculations. Now, all of these flights were pre-planned. A lead navigator from your bomb group worked out the entire mission. You met with him, with all of the navigators, and you virtually had a complete log of when and where you were supposed to be, at what altitude, and what were the weather conditions, air speeds, and stuff. So, all of that was estimated for you, so that you could virtually go on this flight, and, if the lead navigator led you on the course that you were supposed to, you probably didn't have to do any navigation at all, particularly as a wing crew. In the formations that we flew, the further down you got in the

formation, from the lead squadron to the high squadron, and the low, and maybe a low-low, the further you got away from the lead, the less you had to know about. The only reason for keeping a log, and why everyone did, was, suppose, for some mechanical or other reason, you got out of formation. What do you do then, if you don't know where you are? So, you had to keep track of where you were. I guess I would have to say celestial navigation was the thing I didn't like, but, I didn't have to do any of it. In training, I had to, yes. Even in England, we had celestial navigation. We'd go out, occasionally, at night, and I did not like that. I don't know why, but, I just didn't. I guess I didn't like flying at night.

KP: Night flying was your drawback.

CS: Probably, yes.

KP: It sounds as if you did not dread it, but, you preferred not to do it.

CS: I preferred not to. Well, you couldn't see anything. Actually, as I say, my training, basically, was infantry training, and it was all based on seeing and interpreting what you were seeing, and I guess that was drilled so firmly into me in the infantry that the Air Force approach, this dead reckoning, and celestial navigation, and whatnot threw me off, although, actually, if you could read the stars, you basically knew where you were, but, that wasn't quite the same thing as daylight flying. Yes, I preferred daylight flying, that's for sure. So, I was lucky in that respect, that the Eighth Air Force did ...

KP: Missions during the day.

CS: During the day. As far as I know, they never bombed at night.

KP: When did you join your bomber crew?

CS: After graduating from navigation school.

KP: You graduated in 1943.

CS: Right. Then, you were assigned to combat training and I met my crew at Sioux City, Iowa. That was my first introduction to the crew.

KP: What were their backgrounds? You mentioned that one was a mortician.

CS: Right. He was an older fellow. George was in his early thirties, and, since we already mentioned it, when we were in England, I went with him to the Cambridge Cemetery. He and his brother operated this mortuary in Cumberland, Maryland, and one of the people that they had hired was working at this cemetery in England, in Cambridge, England, and we visited there one time, and we were able to go behind the scenes and actually see embalming and everything else, which was quite an experience.

KP: Had you ever seen an embalming before?

CS: No, I had not, but, of course, as a biology student, I had some inkling of what it was all about, because you work on embalmed specimens, cats, and frogs, and whatnot, anyway, in the laboratory, and, the interesting thing is, there were three men, at that time, three soldiers, laid out on the slab, buck naked, being prepped for burial. They looked like waxed figures. I had been to Madame Tussard's Wax Museum in London and they didn't arouse any more emotion in me than, certainly this one fellow, looking at the waxed statues of people in the wax museum.

KP: How did he die?

CS: Well, that's what I was going to explain. This fellow had not a mark on him, not a bruise. He was, as I recall, a West Point graduate. He was in the Air Force. He had shot down two German planes. He had come back and buzzed the field, did a roll over, and didn't come out, and he must have died from concussion or something else, but, there was not a mark on his body, unless there was something on his back, 'cause he was lying on his back, but, nothing on his front.

KP: There was no disfigurement at all.

CS: No, no disfigurement at all. He just looked like he was asleep, but, he looked very waxen. A dead body looks different than a human being. You lose the blush or pinkish color. You turn waxen, yellowish in color, and, yes, it's unnerving. I remember, I was wondering whether I should go or not, but, then, having done it, certainly viewing that poor fellow, it was just another experience. It could have been a dead cow. Obviously, there's more emotion to it than that, but, yes, it wasn't that much. However, there was an infantryman who had been shot up rather badly, and there were wounds all over him, and I remember shuddering at that. That was pretty ghastly.

KP: Where had he been shot?

CS: It was an abdomen wound, in the gut, so, there were tears and just raw meat. He apparently had survived long enough to be transported to England for hospitalization, but, died, certainly, thereafter, and, yes, he was a mess. Now that, even though I obviously didn't know the fellow, evoked an emotional response, but, then, there was a third one, and I don't remember what shape he was in, but, they were the two contrasts, one with no mark at all, the perfect bloom of health, and he's dead on the slab. It just seemed like an awful waste. This other fellow [was] obviously shot up so badly that he couldn't have survived, probably.

KP: What did your friend think of the mortuary procedures? Did he make any comments?

CS: George did not, no. From all the remarks that I got between him and his former employee and from seeing what they were doing, it was just a normal procedure.

KP: Were they following the standard procedure?

CS: Oh, yes, yes, yes. They were prepping them in the normal way. The other aspect about this which was kind of interesting is that there were German prisoners of war working all over the



place and that was the overall atmosphere. The overall atmosphere was, of course, the magnificent cemetery, that cemetery was a beautiful cemetery, and then, inside the mortuary itself, where they were preparing the bodies for burial, and then, on the grounds, and even in some of the assistants there, seeing the German prisoners of war working in the area, which is three different experiences that you gain from something like that.

KP: How many German POWs were there?

CS: I would have to say [that] I only saw four or five, half a dozen at most.

KP: Were you surprised when you saw them?

CS: Yes, I was, yes. Most of them were older men. In fact, there were no young men there. They were older men. They were in their forties. I would have to say forties and fifties. They also did not look like a typical German soldier would look. They probably were very glad to be where they were. They certainly weren't the Nazi type, the young soldier. These were older ones and, as I recall, there was no one guarding them. They were just doing their chores, and I'm sure that in the perimeter of the cemetery and all, there were certainly precautions taken, but, in terms of a chain gang type of situation, where someone was riding shotgun on these prisoners, I don't recall that. There may have been, but, I don't recall anyone, an MP or anyone, shadowing these guys. They may have been in the general area, so that they wouldn't have gone anywhere, but, there was no concern, at that point, that these people were going to do anything but their jobs, which was to sweep up. One of them, I remember, was tending flowers, working on flower beds in the cemetery and things of that sort.

KP: What were the backgrounds of the other members of your crew?

CS: Yes, my first crew. I can't tell you too much about them, because we were in this brief training period, and then, overseas, and you never much worked or stayed with the enlisted men, so that you really didn't find out too much about them. Now, at Sioux City, my wife joined me at that point. We were just married that May of '44, and it was that following summer that we went overseas, but, in May, in Sioux City, the apartment that we got was on the third floor of a house, and it was extremely hot there, and the apartment next to that, they were both attic rooms that had been modified to handle this influx of soldiers. This sergeant, our flight engineer, was there with his wife, and so, mostly, the women knew each other better in experience, because, mostly, we were all business when we were flying. We were learning what each one did and how he did it and developing the crew aspect of the thing and I don't remember ever trying to ascertain the backgrounds of the people. George, I knew more about him. Well, his wife was there, and he had a young son there, too, and, as I said, later on, I went to England, and we went to the cemetery, so that I knew him that much more particularly. For the pilot, Gunther, he was from New Jersey, the Jersey City area. Bill Hunter, the co-pilot, at this point, I have no inkling where he came from. Our ball gunner, (Sanger?), he had gone to navigation school, but, by that time, they apparently had their quota of navigators. He'd just about finished everything. Well, he'd finished everything except celestial navigation, and they closed down the navigation school, and he was sent to gunnery school, and wound up as a gunner, and so, when I was sent off to radar school for lead crew training, I recommended him to our major, our division navigator. I said,

"Look, here's a man that's trained with this crew, he's already got the basic training, give him a shot at it," and, by golly, he did, and he became a master sergeant, and navigated, and I think he was one of the few American enlisted men that served as a navigator to a crew, and he did an excellent job for them. Unfortunately, about a year or so ago, he died, but, he was a great fellow. His background, other than that, I don't recall really delving into, partly because, at that stage, and for most of my career, I have not necessarily been so much interested in the background of people as in what they did, what they achieved. Not until I got into this historical mode, where, now, I'm going back and reconstructing colonial history of my ancestors in Hunterdon County, was I interested in the depth of the person. No, I always was more career-oriented, in the sense that, "Okay, what's your capabilities? What are you doing? How do you interface with me? What can we do to help each other?" sort of thing, and I never did, as I say, find out that much more about that crew. Now, I knew more about my lead crew, essentially because we kept in touch over the years, and so, I knew more about them than I did the others.

KP: Maybe we should go through your lead crew and say something about the different members of the crew.

CS: Yes. Well, I've already made comments on the pilot.

KP: You thought that he was top notch.

CS: Right. Now, what I should add to that, and I don't believe I did before, is that this kid was a plow jockey, what we called a "plow jockey," out of West Virginia. He was nineteen years old, going on twenty, when I first met him, a tall, six-foot kid, gangly, pink blush to his cheeks, just a kid you would write off as a rube, and, yet, he had this marvelous talent for being a calm under fire, extremely competent pilot and everything else. He was just an ideal man, but, in turn, other than the fact that he came right out of high school, I can't tell you anything of his background. I knew his father was a farmer.

KP: He was from West Virginia.

CS: From the West Virginia area, as I recall, yes. As I said, as far as the background of our navigator was concerned, his father was a major general, I think, in charge of all quartermaster, or some other type of activity, in the Alaskan Theater of Operations, or whatever, the North-West Theater of Operations, or whatever they called it, maybe of all the Pacific, I don't know, of contiguous North America, so that Pete was well-trained. I think he had come, maybe, from a prep school or high school, but, very military, and, as I also pointed out earlier, both he and the pilot went on, and became colonels, and had a full career experience with the Air Force. Actually, interestingly enough, both Bob and Pete learned to fly fighter aircraft and that's where they made their advancements. That was the other thing, too. Not only did you have to be a pilot, but, you had to be a pilot primarily with the fighter branch, section, of the Air Force to really move up in ranks. Well, I suspect that they may have been thinking about it based more on the fact that that's where more of the action was. There were more fighter pilots, and, therefore, like in any business, they controlled it. [laughter] I mean, if you're in the top echelon, and you're moving people in to assist you and whatnot, you'll move your type in to help you. Maybe that explains it, but, they both chose and they both did receive fighter training. Now,

Bob, after the war, he flew, I think, for Dutch Airlines for a while, and then, went back into the Air Force, and moved up that way. Having already had pilot training, it was an easy transfer for him to get into jet fighters. Pete stayed in and had already received an appointment to West Point, and, while he was waiting for this, an opportunity to go to flight school came in, and so, he elected not to go to West Point, but, to go directly into flight training, and so, he went into pilot training immediately, short cutting the normal route of getting the West Point training. The fact that he made colonel and everything, I think, proved that he probably took the right track, though, if he'd taken the other, he might have wound up a general, who knows? Now, the bombardier, in fact, he was in the family business of selling machinery and I think he spent some time in Canada, in fact. He's now retired, living in Florida. Pete is retired and is in California, and Bob Newman is down in North Carolina, and the rest of the members of the crew are scattered around, but, they're the only three that I have had personal contact with.

KP: What about the gunners? What do you know about them?

CS: Very little, very little, other than the one who was shot, yes, Bob Johnson, but, I really had no contact with them.

KP: The officers really did not fraternize with the enlisted men in your crew.

CS: That was not what happened on most of these crews. Even in going on leave, the officers and enlisted men went separately. I know some crews did go together, but, just as soon as they got to wherever they were going, they split up, because there are certain areas that certainly were not off limits to enlisted men, but, there were places where they obviously felt more comfortable. They would drift towards the American Red Cross, and, although we went to the Red Cross at times, why, other times, we would go to hotels, more likely than going to the American Red Cross. I know when we went to Cambridge, on several occasions, we went to the American Red Cross, but, we were billeted in one of the old universities, Kings College, and that was quite an experience, to see the English version of a college.

KP: What struck you about that?

CS: Well, I remember two things. One, after I came back, on one of my trips South, when I was doing research work, we stopped by to see Duke University, 'cause my wife's brother had gone to Duke as an undergraduate, so, she wanted to see what the school looked like. Duke was, in structure, in the stonework and all, a modern day version of a 300 year old building in England. Basically, the colleges that I visited were built as quadrangles, tall buildings, three or four stories, arranged in a quadrangle, and you'd walk in one end and out the other, and the other end was on the Cam River, where they boated, and punted, and whatnot. So, there's a nice area behind it. The thing I really remember the most about it was their library. I was attracted to the library for some reason, and you would go in there, and the shelves would be right up to the ceiling, and rather high, and there would be one of these tall ladders that'd be on a rail, and, in order to see the books on the top, you could go up, and you'd have to sit on this thing, because the books were chained to the shelf. You could take the book off the shelf, and sit there on this ladder, and read it, but, there was no way you were going to get it out of there, unless you blowtorched it out of there or something, which is kind of striking, and I don't know what the

books were, because I don't think they would have allowed us to look at them, but, I remember us being escorted through the library, and they explained how it worked and whatnot. Not all the books were chained, but, I guess the real prizes were chained to the wall.

KP: Had Cambridge been completely taken over by the Red Cross and the military?

CS: No, no.

KP: Were there still some students left?

CS: Oh, in terms of students, I guess so. I guess so, but, it was a very lively town, a lot of bicycles, and I would have to say, yes, a lot of them were students. Yes, but, like everywhere else, I think that once you reached a certain age, unless there was some reason for not going into the military, they were pretty much taken, so that maybe not all the colleges were even operational. There seemed to be a small staff on hand, but, I really don't know whether there were that many students, when I think about it now. There were certainly enough.

-----END OF SIDE TWO, TAPE ONE-----

CS: I bought it when I bought this *Wings of Morning* book. I read it and he's interesting. I like to listen to him on *Sixty Minutes*, 'cause he does have a rather distinct viewpoint and a biased viewpoint in many respects. I was surprised that he jumped all over Patton. I had friends that served with Patton, and I didn't get the reflection from them, and from what I understand of Patton, that he was as bad as Rooney pictures him, and, in fact, if it hadn't been for Patton, I think we would have been in deep trouble in a couple of our battles, but, Rooney, at least, I heard him when he gave a speech to the Press Club in Washington, he painted a pretty dismal picture of Patton as actually not having gotten in on the beachheads, not having been responsible for the breakout from Normandy, which I think, if I can recall correctly, is not exactly what happened. I think that Patton was there and that at the Calais Pocket, that if he and the others had been allowed to close it off, as they knew they should have been, they would have stopped the war right then and there, practically, because they had the whole German Army on the Western Front trapped, virtually trapped. Because of some miscalculations by headquarters, they weren't allowed to close the trap, and, again, maybe it was nothing more than poor communications, and everybody knew what to do, but, the messages didn't get there on time. I always felt that Patton was one of our better generals, not to say that we didn't have any others, and, certainly, he was a showman, but, I think that was part of morale. I mean, "I'm gung ho," why follow me? and he certainly took chances that most generals didn't, and so, he was a showman, but, so what?

KP: Where did you get married?

CS: We got married in a church in Trenton, New Jersey.

KP: Were you on leave?

CS: That's right, yes, in between when I graduated from navigation school and just before Helen graduated from New Jersey College for Women.

KP: How much of a honeymoon did you have?

CS: About five days, total, yes.

KP: Where did you go after that?

CS: Sioux City, and she had to finish up college, and then, she joined me a week or so later.

KP: What was it like to live in South Dakota?

CS: Well, Sioux City, Iowa, not South Dakota.

KP: Yes.

CS: I flew over South Dakota. Sioux City was a very nice town, very hospitable. It looked like everybody was nice. The townspeople themselves, although they were obviously inundated by the airmen and soldiers, I think, went out of their way to help in making the people feel at home, and, obviously, they knew that that was combat training and these people were going to be shipped overseas. Now, one of the interesting things that I remember about it, and my wife was a redhead, but, I never had seen so many redheads in all my life as in that town of Sioux City. It seemed like every tenth girl was a redhead. Now, I'm sure that was not the proportions, but, if you have an eye for redheads, this snaps out at you like nothing else, that there were so many red-haired girls. My wife's background is Scotch-Irish and they're noted for redheads. In fact, both her grandmother and great-grandmother were redheads, so that it came down through the family, but, it makes you wonder then, what was the ethnic group out there? Was there a predominance of Scottish descendants in the area, or Irish, or Scotch-Irish, or just what? because redheadedness is not all that common, and, yet, it was relatively common there.

KP: What did your wife do while you were training?

CS: Well, she would meet with the other crew members' wives. After spending a couple of weeks up there in that furnace, up in the attic at this one place, there was a room available on the first floor of another house, and that's where the pilot and his wife, and she was expecting, had their apartment, and so, my wife and Lorraine Gunther spent a lot of time together and with George's wife, the bombardier's wife. Bill Hunter was not married, so, it was just the three of them, and they, I guess, got together every day.

KP: Did they stay in touch after the war?

CS: No, they did not. They went their separate directions. When we left the air base, they didn't even come home together. Helen stayed on longer than they did and came home separate from them. She came home one way, they went to Chicago and around. I think she came through St. Louis and on over and, I don't recall, there wasn't all that much contact between them. Now, thinking back, it may have been that, in the beginning, before the Eighth Air Force moved to England, that there was much more contact between the families and much more contact

between the crew members, but that as the war advanced, they sharpened our training period, and it probably was shorter, and there was less time, really, to get acquainted and for the contacts to be maintained. I suspect that's exactly what happened, because, if you go back even to our 95th Bomb Group and you look at the, well, not a yearbook, but, the bomb group book that they put out, there's a lot in it, and I have at least three or four other books that describe various aspects of our specific bomb group. There was a long period of training at several places, where they had lots of opportunity to become more acquainted with each other's families than we did, and I think that explains it. Also, there was the fact that, when I came back, I went back to graduate school, I don't recall, and George went back to his mortician trade. I did correspond with him for a while, and then, that sort of petered out for one reason or another, but, he's the only one I corresponded with after the war, except for Newman, I knew he went with the Dutch Airlines, and Pete for a while, but, then, we lost track of each other until much much more recently. Our bomb group has an association and it was through them that Pete said, "Hey, there's a meeting coming up. Let's all get together," and so, that's how that happened.

KP: When did you join the bomb group association?

CS: Oh, several years after it formed, actually.

KP: When was that?

CS: Maybe three or four years ago. I knew about it and had obviously gotten material from them, but, I didn't really try to associate myself with them until later on. A fellow marine biologist, who happened to be at the University of Maryland, he was in the same bomb group, he was not there at the same time I was, he was there at an earlier time, said, "Boy, it's a great group. You ought to join," and I think that that's what did it, actually.

KP: Did you join any veterans' organizations immediately after you came back?

CS: I did not, no, no. I stayed in the Air Force Reserve for a number of years, and just before I left Rutgers, I think, they sent me papers indicating they had no longer any need to keep me on the Reserve list, since I had not done a thing. Of course, I was busy in graduate school and keeping the family together. I had more responsibilities than running off to fly around in an airplane, just to keep my navigation proficiency up, or joining a National Guard Unit, or something of that sort. So, no, I didn't keep any contact up with any of them.

KP: How did your unit get over to Europe?

CS: Well, the initial group flew over, but, by the time we joined the air group, they had completed almost two-thirds of all the missions they were to fly. So, the early planes actually flew over, and, subsequent to that, the planes were ferried over, and the crews, usually, were sent by boat, and so, we went over in a convoy.

KP: What was that process like?

CS: Well, from Sioux City, Iowa, we were sent to Harrington, Kansas, which was the staging area. In fact, the most notable thing about that was, it was the first time I ever saw a B-29. You could park a B-17 underneath one of the wings of a B-29. The interesting thing was, superficially, it looked like a B-17. The difference was, you needed a stepladder to get into the thing. You couldn't just grab the hatch and tumble yourself in. You had to go up by stepladder. It was a mammoth plane and that was a staging area for B-17s. Why we were sent there, rather than directly to Camp Kilmer, I'll never know, except that, probably, it was in the logistics of things. There were no trains available, or no place available in Kilmer, or no boats available, or something, so that, in due time, a week or two or so, we did have ground training and whatnot, but, we soon were sent, by rail, to Kilmer. Of course, once we got there, I think we were allowed to call out once, but, I don't know. As I recall, there may have been delays on the telephone, so that if you had said, "Well, I'm at Camp Kilmer," or, "I'm at New Jersey," or somewhere, that'd have been the end of the conversation, because we were warned not to state where we were.

KP: You could only say that you were leaving.

CS: Yes, well, we couldn't even say that we were leaving, that we were in a staging area. I think that's as much as we were permitted to say, but, where are we staging, California, Florida, New Jersey? That was not permitted, and then, we embarked from there to Hoboken, and I, quite frankly, don't remember whether we boarded the ship on the New York side or the New Jersey side, but, we went out in convoy, and then, formed up in the New York Harbor and moved out, and we were escorted by destroyers. All the blackout precautions, everything else that you'd associate with a convoy, took place. There were one or two, I guess, alerts to possible submarines in the area, but, nothing happened, but, there were some alerts, and the whole convoy went into a certain zigzag maneuver, but, nothing really happened. Life on shipboard was interesting, in the sense that the only bathing you could do was in salt water, and there was special soap for it, but, I don't think anybody did much bathing. There were not enough billets for everybody to sleep at once, so, you took turns sleeping, took turns feeding, and took turns walking on deck. There were times when you'd go up on deck and they did have some entertainment. At times, they'd put on boxing matches. Sometimes, there were musicians or others. I remember, there was a fellow who could mimic railroad sounds, trains going to and from, and in the switchyard, and all sorts of kinds of things that he had learned, I guess, in Hoboken or some place. So, there was that type of thing, musicians, and so, you'd have a little chance for a little recreation of that type, but, mostly, your recreation was just walking around, loosening up after sleeping in those tight bunks.

KP: How cramped were you?

CS: Very cramped, very cramped.

KP: Did you have a cabin?

CS: Yes, we had a cabin with about twelve people in it. [laughter] As I recall, there was a series of bunks from floor to ceiling.

KP: Even as an officer, you still had to sleep on those bunks.

CS: Oh, yes. You got in there and the only thing you could see was the impression of the man above you and you didn't have to reach very high to bump him. If you sat up straight, you'd hit the guy above you, and there were, maybe, four or five bunks stacked up like that, and, yes, you had to be careful, getting out of a bunk, that you didn't kick somebody coming out from the other side of the room. No, it was cramped. Well, the thing of it is that these ships were built to convey troops, and they were built to convey the maximum [amount of] troops, and I suppose, maybe, if there was a general, he had different quarters. For anything but field level, from major on up, I suppose, maybe, they had a different kind of quarter, but, anything up to that rank, I doubt if they would have billeted them any differently than the enlisted man. At least, I didn't have a feeling that was the case. I know they were tight quarters, because I'm big enough to have felt in tight quarters in most any circumstances, but, yes, they were tight.

KP: Where did you land in England?

CS: Well, we landed at Liverpool and, from there, I think we were sent to Manchester. I'd have to go back and look at my notes of that now.

KP: This was in 1944.

CS: This was in the Summer of '44, maybe.

KP: Was it after D-Day?

CS: Oh, yes, yes, yes. Yes, I would have liked to have been there during D-Day, because that would have been a very exciting period of time, when the bombers were softening up the beachhead and everything else. It was a rough time of the war. I think there were still German fighter planes in the sky, but, it's like everything else, you would have taken your chances, but, I would have liked to have been there at that period of time. No, we got there that late summer and, as I recall, our first missions were in September. Anyway, back to England, it was pretty much what you expected and didn't expect, in the sense that you'd always heard of "merry, green England." It certainly was green and I guess your best prospective of England was from the air. Everything was in muted colors, like pastel colors. The browns were not that very rich, sharp brown. They all were sort of muted and everything sort of melded into each other. The countrysides were pretty, but, you were, right away, struck with the fact that it was a relatively small area, the habitation. The villages were quaint, window boxes, and their front yards were four-foot square and that type of thing. It was a limited amount of vegetation and all. Yes, it reminded you, except for the cities, the countryside, of what you could imagine in reading medieval history, almost. In fact, one of the things we liked to do was visit the old castles, the remnants that were still in the area, and I still have pictures of one, I think near (Framling Hamlet?), where the crew went out, got some bicycles, and went to visit an old castle. The thing that is ironical, which I didn't know at the time, and I guess my mother probably didn't know at the time, was that her family had come from basically that same area, East Anglica. When my wife and I were in England in '92, we visited the old air base, and then, went north to Norwich and out to Horham, where my mother's family had immigrated from in 1630, and we still found gravestones in the area of her family, the Gilman family, G-I-L-M-A-N, that came across in



1630. [We] visited the old church in Horham, where they still had a lot of mementos relating to the migration and all. By the way, Lincoln's family also came from that same general area, and came over with that group, and, in fact, a sister of one of my Gilman ancestors married a Lincoln, so, there's a rough tie-in there and it's interesting. [laughter] You're related to darn near everybody on earth, if you get back far enough, and that certainly was the case there, but, it would have been nice to have known that then. I might have had a chance to visit the area, but, we were in East Angelica and half way between Ipswich and Norwich, in an area where the Horham [Church?] was. The nearest train switching place was Bury St. Edmunds, and, from there, you switched trains to go to London or elsewhere, and it was just countryside, pock-marked with airfields all over the place. One of the first things I did, and I still have, is my map, on which I drew all of the airfields in our area, and I drew them in red pencil, but, I drew the shape of the field, where it was, and, as I said, I liked to do pilotage, so that, I had memorized the map at that point, if we were flying over a certain field, I knew what turn we'd have to make to get back to our own field. We also had a little dead reckoning box on our navigator's table, a G-Box, that was the forerunner of a Loran type of thing. You could go by pilotage, if you could see the ground, or, by using Loran, it automatically just gives the pilot a heading, if he needed it. My memories are, of England, then, in terms of geography, and the patchwork of forest land, the villages, and airfields, and everything else, mainly from the air. From the ground, it's more of the quaintness of the houses, the thatched roofs, the hedgerows, the narrow roads, the driving on the wrong side of the road, and that sort of thing. [laughter]

KP: How did the English civilians treat you? Did you go to the pubs very often?

CS: We did not go in the area. We did not. I did not, anyway. The officers' club was only up the hill from us, a hundred yards or so from where we were billeted, and, if we were not on leave, going into Cambridge or going into London, one of our favorite places was the South End-on-the-Sea, which is on the Thames River as you went out towards the sea. It was away from soldiers, really, and you were, there, about as divorced from war and soldiering as you could be, and so, if you were looking for a rest, that was kind of quiet, and you could sleep in a home, a bed and breakfast type thing, which was very nice. So, that's what we generally did when we went on leave. As I said, the officers would probably go out together, maybe not all four of us together, sometimes only two of us together, because each of us had different interests. I had been to London several times with my old crew, and so, by the time I joined the new crew, they were just beginning, and they really hadn't seen London to that extent, and so, I didn't always go with them when they went to London.

KP: What did you think of London?

CS: That's the biggest city I'd ever seen. It's sprawled out all over, which makes it so big. It's almost as though, [if] you're in one section of London, you might as well be in a different country, [laughter] or a different county, or a different state, or something, because the sections of London, particularly the further you get out in some of them, are so different from each other. So, it's very interesting from that viewpoint. Now, the wartime status, of course, so much of it was boarded up, and some sections were in desolation, obviously, still, from the bombing, and they were still taking bombing in those days. The V-2 rocket was in use.

KP: Did you witness any V-2 attacks?

CS: Yes, in the sense that I heard the explosions and knew, from the news accounts, that they had landed in the area, but, I never saw one.

KP: You never actually saw one.

CS: No, never saw one, no. I did see a buzz bomb. That's the short ones that look like a stovepipe. That was when I was on the air base. A bunkmate and I had come out of our Quonset hut. When you're on a lead crew, there were two of us billeted per Quonset hut, and we were going up to the officers' club, and we had just stepped outside, and we heard this thing, "Bzzzzz," as it's coming along, making this weird noise, and we looked at the darn thing, and it just flew right overhead. It couldn't have been more than thirty to fifty feet overhead, and it was headed straight for the officers' club, which was up the hill, and then, off to one side was the mess hall, and on the other side was towards some of the enlisted men things, and we watched the thing, and it sputtered along, and, of course, the only time you worry about those things is when they stop sputtering. So long as they're putt, putt, putting along, there's nothing to worry about, because it's when the engine stops that the thing falls, and so, the thing kept on going, and it didn't stop. We heard later that it fell three or four miles further beyond the base, but, when we got up to the officers' club, many of the men were just climbing out from underneath the pool table and wherever they could duck under, because this thing, as I say, was up the hill, and, when it passed us, even if it had fifty feet, it was certainly within twenty to thirty feet from the top of this officers' club. [With] the racket, the echo and noise it would make, everybody obviously knew what it was, and maybe somebody outside had seen it and dashed in, and everybody had ducked under whatever was available. [laughter] It was, to us, sort of funny, because we had just stood and watched the whole thing, but, for those fellows up there, not knowing what was happening, not seeing it, but, hearing it, it must have been a time for heart palpitations.

KP: As a member of a bomber crew, what was it like to actually be bombed yourself? Did you ever ponder that?

CS: No, because, as I say, I really never was bombed, no.

KP: Well, you came rather close.

CS: Came close, and I came close in flak attacks, but, again, except in the one man injured, you really weren't fighting a war, in the sense that you were taking a beating. You were the one dishing it out the whole time. In all of my experience, except for that one time when the plane got hit in all places, including my position, but, it hit the flak suit from the bottom, so, it didn't do anything, it's hard to say I was really in combat.

KP: Earlier in the war, there had been very high mortality rates among bomber crews.

CS: Exactly, exactly.

KP: How many planes did your bomb group lose during your tour?

CS: We lost crews while we were there, and one of the crews actually wound up landing in Sweden, so, we didn't really lose it, and that's the only crew where I knew the fellow. The navigator on that crew had been in navigation training with me in Selman Field, in Monroe, Louisiana, so, I had known him. When it was reported that they hadn't come back, that struck home, because I had gone through training with him. He was a fellow student officer, but, then, within a few days, the crew had been reported as having been sojourned in Sweden. As I look back on it, and, certainly, it was very real at the time, and I had good reason to be anxious, and there were high levels of anxiety and nervousness in missions, but, it's almost as if it were a dream, because it wasn't like there was a soldier standing there, you're shooting directly at him with a firearm and he's firing at you. It wasn't that sort of thing at all, and, as I said, I guess my background is such, and the Presbyterian attitude, "If it's going to come, it's going to come, and only God knows, and why worry?"

KP: Did you go to services at all overseas?

CS: Occasionally, occasionally. I have a firm belief that one can commune with God better than anyone else and it's up to the person to do it, rather than going to church and having a minister do it for you. I think I understand it just as well, maybe better, than a minister, at least my relationship with my God.

KP: What did you think of the chaplains that you encountered?

CS: Very decent men and, regardless of their faith, I think that they were trying to administer to everyone, yes. In fact, I never really had felt the need for a minister. Certainly, I'm not adverse to talking with them. I did go to a few services, but, it was not obligatory, and I didn't feel that way. Now, again, it's different for a fellow in a foxhole. I mean, there are a lot of Christians made in foxholes. It's no joke. I mean, that I can visualize, and I can understand that, but, in my circumstances, it was not at all like that. Now, my whole personage may have been such that I'm not reflecting the true character of officers in the Air Force, certainly in bombers, but, as I remember, certainly in my lead crew experience, we were gung ho to do our job, and we did our job, and there's no doubt that all of us were nervous in performing it at times, but, I don't remember that it was anything that we lingered on afterwards, or felt, I don't know, particularly angry that we'd gotten shot at or something had happened. There were none of the emotions that a soldier would get when his buddy was killed in his arms, or next to him, or anything like that. It's an entirely different story.

KP: How many missions did you fly with both crews?

CS: I think [that] I had completed about fifteen missions, half the missions. They may have changed the number of missions you had to fly. I think they started off with twenty-five in the beginning of the war, then, it became thirty, and I think towards the end of the war, it was thirty-five, and, by fifteen, I had gone over. The Major called several of us in and wanted volunteers to go to Radar School to become a lead crew, and, as I said, I had just gone through those two missions over the Bulge and gotten shot at, and we were flying as a wing crew, never flew in a command performance, and my whole training had been, in infantry training, to be a leader.

This didn't strike me as that's what was happening, and so, here was an opportunity, at least, to move up to a lead type position, even though we were not in the command pilot's position, that sort of thing, but, on a lead crew, and so, I volunteered for it. That was one of the very few things I volunteered for, because that's one of the first things you were trained to do, even in ROTC, you don't volunteer for duties. [laughter] However, this seemed to be the logical one in that point of time. Getting shot at when you're over friendly territory didn't seem to me to be the smart way to go, and I was interested in a leadership opportunity, and, if the war had gone on and we had survived, it might have turned itself around to the point that I could have been the top lead radar navigator for the bomb group, which meant I could have become a captain. That's the top you could go.

KP: As a navigator?

CS: As a radar navigator. The bomb group navigator was a major, but, he was an older man in his forties, late forties, maybe even his early fifties, who probably, and I don't know, but, I just have to say that he probably had had navigation training even prior to his duties. He may even have taught at navigation school, may have been a college mathematician professor, whatever. He had gained that position through advanced knowledge, rather than through his military position. He may have even flown a few missions, but, his major role was to guide and train the young men that came in, and, obviously, to do that, I guess, he had to serve a few missions. So, he probably did, but, I don't know as he ever completed his tour of missions in that length of time, and he may have been the original navigator for the group. Now, they didn't call him a lead navigator. Lead navigators were captains and they're the ones that flew the missions.

KP: How much training did you have before you went into combat?

CS: In England?

KP: Yes.

CS: I don't remember more than a half dozen flights. Mostly, one is the orientation flight, which you sort of did a series of doglegs all over East Anglica to become familiar with the area, with the coastline, where you came in and where you exited from England. At that point, we could even fly across the Channel into France and, I believe, on that or another mission, we did that. The other missions were primarily practicing formation flying, 'cause that was the all important thing in combat, was to be able to fly secure, snug formations. So, that's what we did, but, we didn't have more than a half dozen, as I recall.

KP: How well did you get to know the other crews?

CS: Well, in the beginning, with the first crew, there were four or five of us, just the officers, in one hut, and, yes, there were about four crews, so, yes, we knew those fellows, and then, sometimes, if they went on leave, we would have gone with them, occasionally, and then, sometimes, split up in different combinations. Usually, the entire crew did not hang together, for some reason. Two were enough. As I say, part of this lead crew that I joined, they still wanted to really see all of London, which I had already seen, to my satisfaction, anyway, and so, I went

elsewhere, but, no, you really didn't get to know them. The only one I really got to know to any extent was a fellow by the name of Lee Painter, who was also a lead navigator, and I kept in contact with him throughout his life. He had been a freshman, I think, at Colorado, I think it was Colorado State, at Fort Collins, but, he was at one of the universities in Colorado, and he went back and got married, went to school, was an excellent football player, a varsity player. When he graduated, his father-in-law had a large series of ranches or farms in Colorado, so, he went to work for his father-in-law. As I get the story, which is probably incomplete, but, what I remember is that he was sort of an independent cuss, and the guys on the farms sort of razed him, that his father-in-law had given him a brand new car, and here he was, a supervisor or whatever, and I think he was taking a little razing from the people and not at all, I guess, enjoying the situation, for one reason or another. I had just attended a lecture by Dr. Firman Bear of Rutgers, the preeminent soil chemist, probably, of the world at that point, and I had attended a lecture by Dr. Bear and was extremely impressed. I had never attended any of his lectures or anything else. He was in the Ag School, but, I was extremely impressed with his lecture about trace metals in foods and other circumstances, and, at the time, I was a lecturer/instructor in zoology, a very junior role. I was wedged in there between a full-fledged graduate student and an associate professor. It was a neither-here-nor-there type of situation, and it was within a day or so after that that I got a letter from Lee saying that he was fed up with farm life, or whatever it was, and he was thinking about graduate school, and I knew he had majored as an Ag, and so, I called up Dr. Bear and I said, "I have a good buddy of mine, we were in the war together, and he completed agricultural training in Colorado. He has been working on his father-in-law's ranch and I think he'd make a splendid graduate student. Do you think I should encourage him?" and he said, "By all means." So, immediately, I fired back to Lee that there was this opportunity, and then, comes summertime, and I'm off, I guess at Wood's Hole at that point, and I come back to Marvin Lane, and they're sitting on the little porch-like area. Well, it was just a little entranceway. It had a little peak roof and a side, and it was just big enough so that as you opened the door and walked in, that was the porch or entranceway, and he and his wife were waiting for us there. That's the first inkling I had that anything had happened and he had a fellowship sponsored by one of the companies. I think he worked on nickel as a trace metal, something, one of those types of things, and went on, was a professor at the University of Montana, and wound up as head of the Department of Plant Science and Agriculture, or something like that, at Colorado State. Then, unfortunately, he died of a heart attack, about three or four years ago, but, he's the only one, really, throughout all of this, that I maintained a very close connection with, because we had similar interests. Actually, although I never was in agriculture, my younger brother went into the Ag School, and taught vocational agriculture, worked with Bird's Eye, not Bird's Eye in particular, but, there's another group in South Jersey that did the same kind of work, and I forget the name of the company right now. Then, my grandfathers on both sides of my family, my mother's father and my dad's father, were both farmers, so that, I don't know, there's something there.

KP: What kind of targets did you strike on your missions? You mentioned that you attacked some marshaling yards during the Bulge.

CS: Well, I would have to go back and look at the records, but, that's probably the case. We probably were striking areas that would have supplied support for the Bulge, yes, marshaling areas, airfields. We did bomb airfields, occasionally, bridges, mainly to disrupt traffic flow and

Air Force activities, the German Air Force, and some of these missions were deeper into Germany than others. Our bomb group had been the first to bomb Germany, so, it had that title, but, while we were there, they went back, several times, and we happened to be on two of those missions.

-----END OF SIDE ONE, TAPE TWO-----

CS: Yes, the mission to Hamburg, that was more than I expected. It was kind of exciting, because most of these major areas had flak barriers around them and you had to go through the flak to get to your targets. We went to the Ruhr a couple of times. On one of our missions, we were sent out with the plane full of chafe. These were, well, heavy aluminum foil, a little bit heavier than Christmas tinsel, but, basically, the same thing, about twenty inches long, and we'd go out and open up the bomb bays, and all [of] this stuff would go out, and everyone of those pieces of tinsel would be picked up on radar, initially, as if it were an aircraft, and so, it would look as if there were just thousands of aircraft in the area. At first, I guess, it overwhelmed the Germans, and they just didn't know what was happening, but, by the time we were doing it, they understood it. I don't think they were able to overcome it, in terms of identifying where the airplanes actually were. If the chafe was thrown out at the time that it should be, it would mask a bomber group coming in, but, sometimes, that didn't always happen quite on cue, as everything else in combat does, that if it doesn't go off like clockwork, why, something can always go wrong.

KP: Did you encounter any German fighters? Did you encounter any jets?

CS: We saw enemy fighters, but, I can't say we encountered them, in the sense that they ever fired at us. We saw them firing at other places in the formation. We saw the fast ones ...

KP: The jets?

CS: The jets. [laughter] The jet aircraft, we saw those, but, they were always at a distance, and only on one occasion did I remember that one ever faced towards the formation and, maybe, lobbed a couple of shots at someone else, but, not directly at us. I did see, and I don't know why I didn't react quicker, but, I guess it was unexpected, but, two German airplanes did fly right through our formation and right just below our plane, where, if I had my machine gun out, I could hardly have missed him, because I could see the pilot's expression on his face, his goggles, everything. I could see it just sitting out there, just beyond our wing tip. What they had done was that the B-24s were returning home, and we were going into Germany, and these fellows were coming in close to us and traveling so fast and so close that none of us were alerted to the fact that they were with us, and they were being sheltered by us, so that the B-24s couldn't fire at them, and so, they were able to, I suspect, hit on the B-24s going out, but, using us for protection. It was weird.

KP: What was it like to see the enemy up close? Did you have any thoughts on actually seeing this pilot's face?

CS: I was amazed at how close they were and how much I could see, that the guy actually looked like he was laughing at me. It was almost as though we were sitting as close as we are. Now, that's not right. He was no further away, though, than the windows in that building across from us. That's how close he was. So, if you were in that window, looking at me, I could tell whether you were smiling at me or whatnot, yes.

KP: Did you ever have to drop your bombs early? Did you always drop them on the target?

CS: Well, I'd have to qualify it. When we flew in a wing crew, the first crew that I flew with, we always dropped our bombs when the lead crew did. So, I'd have to go back and check the records on it, because I would have to say that sure, there were plenty of times when there were miscalculations, or the lead crew felt that we'd had enough, or it was a let's-get-out-of-here type of thing, when bombs were dropped early, or dropped late, or dropped on the wrong target. So many things that could go wrong would go wrong, and, when you think about it, it's a miracle that we did as well as we did, and, obviously, the Eighth Air Force had an excellent record, but, occasionally, things went really askew. You asked me how many missions I flew. I can remember twenty-seven, clearly. I think [that] I flew about thirty missions, but, as a lead crew, that's all I had to fly. That was one of the bonuses you got as a lead crew, is that you flew fewer missions.

KP: However, the lead crew is under more pressure.

CS: Well, yes, that's presumably why. Also, it took longer, because you didn't fly as frequently. You didn't fly as often as the wing crews did. You had a longer rest period and longer training. When you weren't flying, you were up there, I was always up there, in the navigation room, studying all of the radar images. What you would do is, they had photographs of everything, and you'd have the maps that you used, the pilotage maps, and then, you would sit down with them and different targets and study them, and I used to enjoy doing that. I think I probably stayed up there, studying those maps, more than anybody, because I was intrigued with the differences between photographs, before and after bombing, and then, the comparison with the radar picture of that same town, or village, or bridge, or marshaling yard, and then, with what it looked like on the map.

KP: You knew how effective or ineffective the bombings were from those pictures.

CS: Oh, yes, oh, yes.

KP: What were your impressions of the bomb group's effectiveness? How often were the proper targets hit?

CS: In part, it was almost in relation to the difficulty of the target, difficulty meaning, how much antiaircraft, how much threatening by the German Air Force one could expect, the length of the mission, how tired were you, the height at which you bombed? The higher you were, the less accurate you were. Obviously, the closer you were to the site, it was easier. The 95th Bomb Group had, overall, a good record. In fact, I've got the complete list of all their missions, and it'd

be easy to go down and just check off exactly what they did, and I have looked through it, and I was impressed with the fact that our lead crew had done as well, or better, than any of the others.

KP: Overall, would you say that it was worth the effort? Did you take out enough bridges, or marshaling yards, or other targets?

CS: Bridges weren't that easy to take out. Why they ever assigned a bomber to do it, I don't know. What you needed were these small bombers, the B-25s, the B-26s, and maybe even just a single fighter aircraft. The Thunderbolts and all, carrying one bomb, could get down low enough and be more effective, because they would be right on it, but, it was a challenge, and I think we did, occasionally, do some damage to bridges. We were much more effective on marshaling yards, railroad yards, but, that's a broader target. I remember that one of the areas we went to was Cologne, and, having visited it in '87, when my wife and I were there, I was surprised that we had never hit, or done any major damage to, the cathedral, which was virtually right next door to the major marshaling yards that we had bombed. The cathedral had been struck, but, by that time, major repairs had been done. The guides there said that minimal damage had been done, and, yet, we had bombed virtually within hundreds of yards of the area, the large marshaling yards there at Cologne, so that we were effective, certainly, to that extent, because we did disrupt the traffic flow.

KP: You could tell this by examining the radar pictures.

CS: Not the radar. You could tell that by looking at the bomb strike reach. There were reconnaissance planes that went out, the Lightnings, P-38s, I believe.

KP: You could tell by comparing the before and after photos.

CS: The reconnaissance planes, the photographic planes. Then, there was the Black Widow, also, that would go out and do photo reconnaissance. One of the things that some planes did do is, as I said, and I did it on that mission to Holland, the food mission, back in where the radio operator and the radar man were, you could open up the floor and look down, and you had a camera that could be put in place, and you could take photographs. So, some of the crews, in the planes that came over later, had that mission, but, I don't recall that we ever had that mission on any flight that I flew, unless I did it myself, when I was on the lead crew, but, I certainly didn't do it as a wing crew, so that you could get immediate results of the planes that came after you in the bomber stream and get mission reports. Mostly, all you saw was smoke coming up from the area, and you could tell, basically, from that whether the strike had hit anywhere near what you were aiming at, and, on the basis of that, they could immediately tell whether you had to go back the next day or if this was taken care of for the week or so. A lot of these targets, they were repaired so fast that you went back to them time and time again, as a bomb group, not necessarily the same crews, but, the Air Force would hit some of them several times. Like Berlin, I think, was maybe of nuisance value more than anything else, because all of the vital units in Berlin were all subterranean and so heavily ensconced in concrete and whatever, and reinforced steel, that nothing would have really hit them, I guess, except maybe an atom bomb, which, obviously, we didn't have, but, it certainly let them know that the Air Force was willing to take them on and



bomb them, even in the early days. As I said, our group was the first ever to bomb them and that was long before we got there.

KP: What did you think of the possibility that some of your bombs landed on civilians? Did you give that possibility much thought at the time?

CS: Yes, I did, but, in most of the missions that I went on, where I could see what was going on, it was clear that that was minimal. I remember, on one mission particularly, we went down into Southern Germany. There was confusion on the bomb run, and our formation, we were coming in at one angle, and another bomb group were flying over us, coming in another direction, and our people starting dropping the bombs, and we were underneath them, and we peeled off. So, we did not bomb the primary target. We looked for the secondary target and we didn't find that. Then, there was the tertiary target and we headed for that. By that time, I think our lead navigator was so confused that they didn't know where they were at, and so, they jettisoned the bombs. I remember looking down and seeing a little village, and I believe it was a Sunday, and I could see people as if they were going to church, and our bombs hitting in what I said was a potato field, and my record was that we certainly did plow up that field for that farmer. We did a job on an empty field. Now, whether the lead navigator had realized there was nothing for them to bomb and they just jettisoned them in about as empty an area as they could find immediately or not, I don't know. It was later on that mission, coming back, and I think that's the mission, 'cause we went near Strasbourg, in France, near the Rhine River, that shortly thereafter, the formation flew in the clouds and we split up. When you fly into a complete cloud bank, where you can't see the other planes and you're flying wing tip to wing tip, virtually, well, we were further out now, 'cause we were leaving Germany, but, even so, you have a pattern, the lowest plane goes down, the highest plane goes up, and the others scatter, so it's sort of like a bomb bursting, and, hopefully, when you burst out of this, you don't hit anything. We were in one of the lower planes, so, we went down, and the concern was that, "Well, where are we?" and, at that point, my navigation had not been so exact as to precisely say, "Well, we were at these coordinates," particularly, because of the getting the heck out of the way from the bombs coming down on us on the bomb run, 'cause we happened to be sliding under this formation above us, going and missing the secondary, and then, the tertiary. I think, even by then, our bomb group had split up into squadrons, so that we were flying by squadrons, rather than in an entire group. That's how confused the issue had gotten, and then, we got into this cloud bank and split up, and we got down on the deck, so to speak. We were below the clouds, and I could see the ground, and they wanted to know where we were, and I kept telling them, "Don't worry, don't worry. We're over France." "Well, how do you know? Do you know our position?" I said, "No, I don't know our position, but, I know this is France." Well, the difference is that, in Germany, all the villages, the houses, are in a cluster, and the farmland radiates from these clusters. In France, the villas, the farmhouses, are discreet. So, you have a farmhouse and a farm, a farmhouse and its land surrounding it, and there's no confusing the two. They're absolute, and we were on a line that took us up towards Brussels, and just before, at about that time, I knew basically where we were, the pilot had learned that our field in England was socked in, that he would not be able to land at our base. We're coming in towards Brussels, and, by then, I basically knew where we were, and told him so, but, then, we pass over this airfield where there are a bunch German aircraft, and, oh, boy, everybody gets excited. Well, this is one of the airfields that we had overrun, and the planes were just left there, and, at closer inspection, some of them are all shot

up, but, at first sight, you're looking down and here are swastikas all over these aircraft. It was kind of a shock to them, but, this was on the outskirts of Brussels. So, we did put in there and land there, and then, on the next day, we flew out, got back home, but, that's the sort of thing that happens.

KP: Well, perhaps we should end there. This concludes an interview with Dr. Carl N. Shuster on May 23, 1995, in New Brunswick, New Jersey, with Kurt Piehler.

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Reviewed by Shaun Illingworth 8/3/00

Reviewed by Sandra Stewart Holyoak 8/19/00

Reviewed by George W. Shuster 11/16/2022