

*U.S. Army Military History
Institute*



SENIOR OFFICERS DEBRIEFING PROGRAM



CONVERSATIONS BETWEEN

LIEUTENANT GENERAL DAVID OTT

and

Colonel Stanley Cass

CARLISLE BARRACKS, PA. 17013

ACCESS AGREEMENT

28 Aug 1980
(Date)

MEMORANDUM FOR: DIRECTOR, USANHI, CARLISLE BARRACKS, PA 17013

SUBJECT: Access to My Oral History Audio and Video Tapes and Their Transcripts

1. My initials have been placed adjacent to one of the possible access arrangements under subparagraphs a, b, and c below to indicate the degree of accessibility I desire.

✓ a. To my audio tapes access is granted to:

1980 ✓ all who seek access.

_____ only those who are determined to be bonafide researchers and scholars by the Director, US Army Military History Institute.

_____ only active and retired uniformed members of the Armed Services and Department of Defense civilians who are determined to be bonafide researchers and scholars by the Director, US Army Military History Institute.

_____ only those who first secure my permission directly or through the Director, US Army Military History Institute.

_____ no one until such time as I direct otherwise or upon my death or incapacitation.

_____ (other, please write out) _____

b. To my video tapes access is granted to:

1980 ✓ all who seek access.

_____ only those who are determined to be bonafide researchers and scholars by the Director, US Army Military History Institute.

_____ only active and retired uniformed members of the Armed Services and Department of Defense civilians who are determined to be bonafide researchers and scholars by the Director, US Army Military History Institute.

_____ only those who first secure my permission directly or through the Director, US Army Military History Institute.

_____ no one until such time as I direct otherwise or upon my death or incapacitation.

_____ (other, please write out) _____

✓ c. To the transcriptions of audio and video tapes access is granted to:

DDO ✓ all who seek access.

_____ only those who are determined to be bonafide researchers and scholars by the Director, US Army Military History Institute.

_____ only active and retired uniformed members of the Armed Services and Department of Defense civilians who are determined to be bonafide researchers and scholars by the Director, US Army Military History Institute.

_____ only those who first secure my permission directly or through the Director, US Army Military History Institute.

_____ no one until such time as I direct otherwise or upon my death or incapacitation.

_____ (other, please write out) _____

✓ 2. My initials have been placed adjacent to one of the possible access arrangements below to indicate the degree of access that I desire upon my death or permanent incapacitation.

DDO be open to all.

_____ remain the same as indicated in paragraph 1 above.

_____ be as the Director, US Army Military History Institute feels it will best serve the interests of the Armed Services.

28 Aug. 1980

(DATE)

- ✓ 3. My initials in the paragraph below indicate the disposition of the literary rights to my Oral History materials upon my death or permanent incapacitation. The literary rights to my Oral History materials become the property of:

USAO the United States Army.

or

_____ (other, please write out) _____

4. I understand that all audio and video tapes and interview transcripts are the property of the United States Army.

(Signature)

David E. Ott

(Print Name)

David E. Ott

The author of this approved transcript retains
literary rights under the statute of the U.S.

Code pertaining to Common Law Copyright.

SECTION I

ORAL HISTORY INTERVIEW - TAPE #1 (O-10)
DECEMBER 1979
TAPED INTERVIEW WITH LIEUTENANT GENERAL DAVID OTT
CONDUCTED BY COLONEL STANLEY CASS

COL CASS: General Ott, I appreciate you taking your time to sit down and initiate this interview. I think that it will have a tremendous value as we put it into the Archives of the United States Army Military History Institute, and I'd like right now to cover what I would hope that we get through in the process of conducting this in two or three segments, whatever it turns out to be. I would like first of all to cover those items as we go through your career, and your viewpoints that lend substance to at least three points important for students of Military History in the future to get from this interview. One - there are a lot of students of generalship and I think it important that we cover those assignments and those actions that took place in your career that contributed to you arriving at the very impressive pinnacle of success in the military that you did, to gain the stature that you did. I think it's important that we cover those assignments and those steps that you took. Secondly - you certainly are considered to be one of the authorities on artillery, and one of the foremost artillerymen of recent years, and I think it important in that regard that we look in depth at those assignments and those actions that either you took or other people took that gained you that reputation and gave you that stature as an artilleryman. And thirdly - certainly you have had the experience that only a few of our generals have, in your commanding the VII Corps in NATO, of integrating a NATO organization into your Corps structure, the 12th Panzer Division, and cover in depth the problems, the satisfactions that you saw in putting together that combined force; how you would view that as being a thing of the future, an absolute necessity,

or however you want to categorize it. So then, specifically, we'll start by going into your family background, talking about your early interest in the Army and delve into the education that started you out on this entire field of endeavor, your years at West Point - you were there in the years during the Second World War when it was a three year course - talk about your early assignments and at what point you really started orienting yourself toward becoming a general and this art of generalship we talk about. I'd like to examine rather closely the key assignments that you had as you worked your way up to your successful completion of an Army career; that fact that you were artillery all the way, that you probably had every assignment that any artilleryman should have and could have, the fact that you were in MILPERCEN as the Artillery Branch Chief, the fact that you commanded Fort Sill, etc. And then lets put special focus on the period that you as Commander of the VII Corps in Germany incorporated the artillery and the troops of one of our NATO countries - Germany - into your structure. So, now, if you are ready, General Ott, I would like to start back with your family background and where and when this all started.

LTG OTT: Well, that's a very kind introduction, Stan. I must say that, without trying to be modest, there is an element of luck in most military careers, timing if you will, perhaps serving under the right person under the right circumstances, all of which add in a rather unmeasurable way to whatever later occurs in your career. But, you can start me as being born in the Army. My father was an Army officer who entered the Army in World War I from Louisiana State University, and I was born in Schofield

Barracks, Hawaii, grew up as a youngster in a series of Army posts although my father did pull one four-year period as Assistant Professor of Military Science at Auburn, Alabama, where we were in a really civilian community. But, other than that I grew up around fellow Army brats, living almost always in those days, on the post where you had the military feeling about you all the time, and peer pressures - always important - motivating me to be like my father - to become an officer and serve in the Army. My father was an artilleryman and I had as a youngster, and still do, the utmost respect for him, and I guess it was a desire to emulate my father that was the fundamental driving force in my very early life. I would add to that I always felt artillery was a combination of troop leadership and technical skills, that to really be a first-class field artilleryman you needed to have some skill in mathematics, the technical side of the artilleryman's problem, and this I was born with. I have always done well in mathematics and physics and courses of that nature, and I think that that was a necessary part of my interest in artillery. But, I liked the combat arms role. I was never interested in artillery in the sense of manning great missile systems miles behind the front, occasionally shooting nuclear weapons. I liked the sense of involvement with the infantry, with armor, in the winning of what's now known as the central battle.

COL CASS: If I could back up a little bit, sir, you talked about the peer pressures as you were growing up and traveling from post to post with your father and how you just automatically fell into the Army way and that you really

had no desire to do anything except to follow his footsteps. Isn't that - don't you feel that that was much more predominate in those days than it is these days? I've seen so many examples now where young men that are Army brats or military brats have become so - in some cases, disgusted with the fact that all they've heard all their life is Army so that by the time they can shed their reins they want nothing to do with it. Do you agree with that viewpoint?

LTG OTT: Yes, and I'm not sure I know all the reasons why, but I mentioned the peer pressure because I recall very vividly when my father left his assignment in Auburn, Alabama - that was in 1933 and I was 11 years old, and at that point I'd say I was not particularly motivated to be anything. I sort of liked the idea of what my dad was doing but I hadn't been around peers who had any particular motivation. We were transferred in 1933 to Fort Leavenworth, Kansas, and all of a sudden I was surrounded with young fellows and gals who were children, in some cases, of two and three generation Army families whose whole motivation was to go to West Point and be soldiers, and it caught on to me too. I would say that prior to 1933, West Point didn't figure very heavily in my thinking. My father was not a West Pointer, but after I got around all those fellows in the Fort Leavenworth time frame - many of whom incidentally are names that you would know today like Jack Cushman and George Brown, the recently deceased chairman of the Joint Chiefs of Staff, Alan Burdett, - these were cohorts at Fort Leavenworth. I felt that reinforcement to what I had felt from my own father, so my motivation really got going

then. We were there for four years. So, in 1937 we left Fort Leavenworth. I was a young man interested in going to West Point and being an artillery officer.

COL CASS: You were well on your way then. You mentioned your father, of course - long time Army. Do you have other Army connections in your family on either side?

LTG OTT: Only in my wife's family and that doesn't count at this point in my life because I didn't really know her then. I didn't know her until 1938, my father was the only one of his brothers who became a regular Army officer.

COL CASS: Well, that brings us up then, I believe, to - you've already mentioned that you were pretty much interested and had oriented yourself to going to West Point. I know that you were in the Class of '44 at the Military Academy and most of your classmates entered in - I guess - 1941 - the bulk of them. I have noted that some of the people in your class are also names that at least I've run across in recent years - General Cushman I've noticed was graduated 12th in your class; General Cooper who I've worked with in the Pentagon, and recently back from NATO. I guess he was over there about the same time you were, and is now working in OSD NATO Affairs. He was number five in your class, I noted, and I noticed another interesting name - John Eisenhower - in your class.

LTG OTT: Yes.

COL CASS: And another whom I've always admired, certainly from athletics, is Kasimir Myslinski. Would you care to comment on - we've heard why you went there - do you care to comment on your years at West Point and how your attitudes changed, if they did, as you went through - that being a very traumatic period, of course, in the United States - going through the Second World War. You probably had some draft dodgers in there, certainly not these people I've named, and yourself, but there probably were a few. Any comment on the make up of the class and how these other gentlemen I've named fared, as you did?

LTG OTT: Well, we entered in the summer of 1941 which means for the most part our applications and everything had been in the mill for sometime. I don't know of anyone in my class that entered as a draft dodger but I saw in the classes that followed me, unquestionable cases of draft dodgers. As a matter of fact, I would say that in my class there was an enormous sense of frustration on Pearl Harbor Day. It occurred just a few months after we were in, and we felt we were locked into West Point while the United States was going to war. People today often forget the national fervor that was felt at the time of Pearl Harbor, and the absolute - total unification of our nation, and readiness to go and defeat the dictators on both sides of the world who had created the world scene. I felt, as did many in my class, that we were in a terrible place. We were stuck at West Point. I would say many of us considered resigning, although we were going to wait and see if that was going to turn out to be the smart thing to do. No telling at that point how long the war might last or whether we might be able to enter. When the decision was made a few months later

to shorten our time to three years, I think that we all felt that would get us into the war, and it did. As a class we saw active combat service in World War II, in the latter stages, but we were there. The sense of being at West Point during the war was in some respects humorous, and I think we had the sensitivity to appreciate it when they gave us live ammunition to pull guard duty. We all chuckled to ourselves that this was ridiculous - to think that West Point was actually threatened by anybody, or that a handful of cadets as guards with live ammunition would be able to do anything about it, and I guess what worried us is that we had a few classmates that we didn't like to see carrying loaded guns around the place, and we had a few in the classes behind us that worried us even more, I guess you might say. But, I think that being in a military academy at the time of a great war has a way of galvanizing your dedication. We really became believers in our school, in the Army, in the force of arms as the way of life in the world. And, I sometimes suffer when I don't sense the same dedication in young people today, including in the Military Academy. I have to realize that times weren't normal when I was there, and perhaps we were the more unusual. But, I would say that we had a remarkably cohesive and motivated group who took their training seriously and who were very eager to get out of West Point and get involved in the war that was sweeping the world.

COL CASS: Was there anything about - do you recall in your class - any individuals that at that time you would have destined to be top generals in years to come, such as, of course, General Cushman?

LTG OTT: Well, I think that as cadets we were not really totally astute about careers. We thought more in terms of getting out there and becoming officers rather than who would be the Chief of Staff of the Army someday, or something like that. The career concept has really sort of grown in the Army in more recent years, and that's hard, I guess, to express, but as you know, I grew up in the Army. And in my father's generation and his grouping, people didn't talk of careers. You were promoted when there was a vacancy. There were very few selection boards to anything. Almost everybody followed the same basic pattern and they followed it as seniority permitted. So that sort of philosophy was still with us and we as a group were thinking of being officers. Now there were a few in the class who really caught the class's attention. I think, obviously, General Cushman - he was first captain of our class. And, incidentally, I was the brigade supply officer on his staff so we lived together. General George Blanchard, who was a cadet battalion commander, was in the other regiment of the corps where I didn't see a lot of him but I know he was very well thought of. He was a couple years older than the most of us. He had been a sergeant in the National Guard, and incidentally, General Cushman had had some enlisted time, so both of them had a degree of military "schmarts" already. There were others whose sort of native leadership, we thought, would lead them to high ranks. In some cases they succeeded and yet some of those that we thought very highly of chose to get out of the Army in the early years after the war.

COL CASS: I somehow overlooked General Blanchard's name in going down your class. I apologize for that.

LTG OTT: General Blanchard and General Hennessey are the two four-stars.

COL CASS: Oh, Hennessey. Yes, sir. I missed him too. I don't imagine there was any doubt about what branch you were going to select upon graduation, and what was your first assignment then when you came out of the academy?

LTG OTT: I was sent, of course, first of all to Fort Sill to the basic class, and then on to the 65th Division at Camp Shelby, Mississippi, where I joined 868th Field Artillery Battalion, Direct Support "105" Battalion, with three of my classmates in the same battalion. This happened all through the divisions that were then in the United States. The Army had made the basic decision to send our class to divisions that were still in training and let us deploy with them rather than put us in the replacement stream and send us over to Europe. That may or may not have been a good decision. It probably saved a lot of our lives - hindsight. But, I joined Battery C of the 868th Field Artillery, which at that time was authorized four lieutenants and I think we had seven. When the division was alerted for overseas shipment, we were told that we had to cut down to our four authorized lieutenants and I was - by order of, and I never knew by whom, I guess Army ground forces - to be one of those that stayed. All of us who were regular Army officers were not permitted to be cut and this caused some heartburn within our units because we were recently joined and other officers were cut out, and not shipped overseas with the unit but instead put in the replacement stream. My official duty at that time was Assistant Executive Officer. Now, you have to be familiar with World

War II structure in a battery of field artillery. We were only authorized one forward observer per battery. We supported three companies of infantry with one forward observer. Well, you can't do that so we had to generate other forward observers from within the battery ranks. In almost every similar unit in the Army the reconnaissance officer became a forward observer as did the Assistant Executive Officer, so I found myself with duties through the war interchanging between occasional work as Executive Officer - Assistant Executive Officer - and forward observer.

COL CASS: What was the first assignment you recall as a really motivating assignment and one that truly inspired you to move right on out? Do you recall?

LTG OTT: Well, I would say that one.

COL CASS: The first one?

LTG OTT: Yes, the first one. The excitement of being in a unit that ships overseas and goes into battle. I thought very highly of my battery officers. We had some excellent sergeants and I just felt that I was doing what I ought to be doing.

COL CASS: As you moved on through some assignments, what was the first one that was really the key to the success that you later enjoyed?

LTG OTT: Well, I think right after I came back from Germany. I stayed on after

the war in the Army of Occupation, in two or three different positions, and I returned in 1947 - went to jump school and then to the Gunnery Department at Fort Sill, where I certainly was not a very knowledgeable gunnery officer because I had been away from gunnery during that occupation period in World War II. So, I had to learn as I prepared to teach. I was in the Gunnery Department for three and a half years and during that time I think I became a really professional, so after that assignment I knew that I could go into any field artillery unit in the Army and be more professional than my fellow artilleryman because he would have had only the advanced class, and I had that period of intensive work as an instructor.

COL CASS: While you're on that, do you consider it really invaluable for an artillery officer to - at some stage in his career, well, it would ideally be early on in his career - to serve at Fort Sill as an instructor? That seems to be a kind of common threat among. . .

LTG OTT: Well, I think it is. I think those artillerymen who have become known later in their careers, as what we call "smoke-eating" artillerymen - true professional artillerymen - were for the most part at one time on the faculty in the school.

COL CASS: I've even noticed that several Marine generals have had a tour in the Gunnery Department - at Fort Sill, so it seems to be. . .

LTG OTT: Well, it doesn't necessarily have to be gunnery. . . .

COL CASS: No, no. . . .

LTG OTT: There are other departments, but the point is that that becomes a period in your life when you're on a faculty when you're not worried about soldiers who are having family troubles and the many other burdens that a typical line officer has to carry. You're purely dealing with tactics and doctrine and becoming a thoroughly professional member of your branch.

COL CASS: There's a period - let's see, we're talking about 1947, now - would you just move through the next fifteen years as you see fit and tic off those most significant assignments up to the - let's say the - Vietnam era, please?

LTG OTT: All right. When I finished the tour as an instructor I was sent to the advanced course, which incidentally made gunnery rather easy. As I recall, I stood number one in gunnery in my class - it would have been a shame not to have. But, I went from there directly to Korea to the 64th Field Artillery in the 25th Division, as a major, and found myself assigned as the Executive Officer rather than the S-3 Gunnery Officer for the first six months. That frustrated me but it was good for me. I did get involved in the training of the batteries and I got into the administration of the battalion, something I had not done. Then the last six months I was the S-3 of the battalion and the war ended while I was still in that position. But that gave me a chance, during that period, to apply all the work I had done in learning field artillery in the Gunnery Department at Fort

Sill. It's sort of ideal to step out of teaching gunnery into combat as a gunnery officer, and I came very close to doing that. Then I was sent to the Pentagon and I served for a period in ODCSOPS - in fact, initially it was G-3 before it ever became ODCSOPS - in a section of it that dealt with organization, and I had the artillery desk. Now, I had other responsibilities but even though I was a member of the Army General Staff, and a piece of ODCSOPS, I really had a job that could only be filled by a field artilleryman and was put into it because of my experience at Fort Sill and the Korean War, and yet my work there gave me much broader opportunities to observe how the Army functioned. It was a very important building block in getting my sights lifted above battalion level and seeing the Army as an Army. So, I think that was for me a very important assignment. I met a lot of very outstanding officers in ODCSOPS. It's always been famous for the quality of its officers. . . .

COL CASS: Yes, sir. Who were some of the people in DCSOPS at that time frame. . . ?

LTG OTT: Well, one of them was named Earl G. Wheeler. He was my boss for awhile and another one was Harold K. Johnson; General Hook Almquist - I worked with very closely; Melvin Zais, I got to know and served with later a number of times; Paul D. Adams; Clyde Eddleman; James Gavin who was G-3 before he was Chief of R&D - ah, pretty good group. . . .

COL CASS: Pretty good group of guys to. . . .

LTG OTT: And they are tutors. You learn a lot from seeing these people and how they function. So, I was young. I was in the Pentagon with only nine years service and I think very malleable, ductile, and this was useful to me. I went from there to Leavenworth and then to the 82nd Airborne Division, and I think the important point there might be that while I was a student at Fort Leavenworth, I was advised that I was to be retained as an instructor. Now, I was then coming up on thirteen years of service and I had not been with troops since the Korean War and that in combat. And, I knew that if I stayed on at Leavenworth as an instructor, I would leave there with sixteen years of service, probably as a lieutenant colonel and would really not know the soldier part of the Army. So, I asked in five letters and two telephone calls to have my assignment changed, and my last telephone call was to a major general in the Washington personnel business, literally pleading to let me go to troop duty. And, he did, indeed, change my assignment and sent me to Fort Bragg to the 82nd Airborne. In the meantime I had come out on a list for promotion to lieutenant colonel, in the first of those "out of zone" lists - when they first started that. So, of course, I was at the bottom of the list and I knew it would be a long time until I was promoted. But, nevertheless, they sent me to Fort Bragg to command a battalion of parachute field artillery. I arrived at Fort Bragg four weeks before that battalion was inactivated as the Army went through the reorganization of the mid 1950's, and we went into what was known as a "ROTAD" division - no battalions in the DIVARTY - so I never even saw the battalion I was to command and became instead the Division Artillery S-3 where I served for two years

under such people as Hamilton Howze who is a superb mentor, trainer, and who to this day is a very close friend from that assignment. He taught me a lot of generalship, watching how he conducted himself, or how he supervised training. I think he was the best training general that I have ever known and to this day I still rank him as the number one training leader. That was a good assignment for me except for a couple of personality clashes I had with a lieutenant colonel on the DIVARTY staff who was kind of a strange type; I only mention that because those clashes got me into a fair amount of trouble, and I was lucky not to get "creamed." I was very badly clipped on my efficiency report, so to anybody that thinks that all your reports must be lily white I would like to point to one I have that would make your ears smoke a little if you read it. I went on from there to Europe to get my command of a battalion, an eight-inch howitzer battalion in V Corps. That didn't excite me because I had always been in direct support, mostly "105's" and to go into a Corps Artillery with an atomic eight-inch battalion I didn't think was going to be as much fun; but I think it was useful to me because I learned so much about heavy caliber artillery, about nuclear weapons and their employment, and I learned a lot about soldiers and soldiering that I may not have focused on as hard if I had been back in my old hat as a direct support artilleryman.

COL CASS: We went through a period in the Vietnam War where we limited our commanders to six months which I, personally, thought was a bad thing. I think our command assignments now vary from two to three years. How long was the

standard battalion command assignment then and do you think it was the right length of time, or could you command as long as you wanted to?

LTG OTT: Well, interesting that you ask that because that is the sorest point I have about my tour as battalion commander. There was no such thing as a command length, tour length, or any such thing as a selection board or selection list. You got into command essentially through the "old boy" net, or because someone in MILPERCEN had nominated you to take it and nobody had stopped the nomination. So, you know - an awful lot of pure luck went into getting a battalion command. I would say that most people in that time frame served about eighteen months. It was fairly standard - two years was not unusual. But, we were considered eligible for re-assignment after one year. At the end of the fiscal year you could be moved because the transportation costs of moving a family froze you until the new fiscal year started. I took command in July of 1959 and on July 1st of 1960 I was moved. I was furious. I felt that I had gone through a year of training this battalion from what I thought was a battalion that had a lot of weaknesses to one that I was rather proud of. Every non-regular officer in the battalion had applied for a regular commission during the period I was with them. I thought we were doing very well. And, we'd had some problems in maintenance. I had a very poor maintenance officer but I was a poor one too, I guess. But, by and large we had a lot of esprit, I thought, and I'm sure others probably support that, because it was a good gang of officers, really a first class group. But being moved out on the day I was eligible was a source of extreme frustration and led to a period of despondency that I went through

in the Army that I wanted to mention to you as part of my career, because I sometimes feel that young officers today, looking at senior officers, think that they were lucky enough to have golden assignments and to have motivation and happiness throughout. Well, as I mentioned earlier, I was stung in an efficiency report at Fort Bragg; I was cut short of my command tour in my own view. Now, when I got to my next assignment, which was the Plans Officer for the general war plan at Seventh Army, Stuttgart, I found myself under a very ambitious colonel who was literally going to be sure that the work that the group of us did assured his future success. And this colonel, whom I won't name, really talked to us daily about how good he was. This was the third officer in my career that I had served under who seemed to love to talk about how good he was. I guess by then I had developed some very serious bumps with a feeling that if somebody is good we'll know it. You don't have to tell us, it'll come across. But, this officer had told us that if any of us didn't want to work for him, he'd release us before he had to write an efficiency report. So, I went into him about a week before my efficiency report must be written and said, "I want out." This shocked him, and I told him I just didn't think I could work for him. I thought he was an egotist, and I thought he was very difficult to have to listen to so often and that he'd given us this opportunity and I wanted to leave. And, he said, "Well, if that's the way it's going to be, I'll go along with that." But, he went into his boss who was Mel Zais. Mel Zais was the Seventh Army G-3, and Mel Zais said, "I won't support any such thing at all. You tell Dave Ott that he's going to stay there and he's going

to work, period." And, Mel Zais called me in and reinforced it - that no nonsense like that would be tolerated. So, for the next eighteen months, I worked for a man that I had just told I couldn't stand and didn't want to work for. My morale couldn't have been lower. I didn't really mind my job. I was frustrated that I wasn't still commanding the battalion. I didn't like my boss. I liked some of the other officers I was working with, but it was a most difficult period and I seriously considered getting out of the Army. I figured I'd run into too many people now, by then, that I didn't like to work for - time to ship out.

COL CASS: What kind of an OER did you get from him, ultimately, then?

LTG OTT: Not the greatest, not the greatest. It wasn't bad because Melvin Zais was sitting above him and I guess Melvin Zais wouldn't have tolerated my getting chopped up since he had put me in there. I don't think if you had gotten that report you would have walked away saying, "Boy, this is the greatest report ever." But, interestingly enough, I still made it to the War College from that job.

COL CASS: You - let me back up just a moment, if I could, sir. On the earlier one that you had, I guess from Fort Bragg, which you said was not a good report - I think that's an understatement. Did you have the mechanism to a reclame of an OER in those days, as I know we have now, and did you consider a reclame or was that the thing to do at that time?

LTG OTT: Well, the mechanism was there but the report extolled my abilities.

It said this is an absolutely "cracker-jack" superb officer but he's been disloyal to me, and that would have been very difficult for me to challenge because, I suppose, in a sense I was disloyal. That guy was not my boss. He was one of those deputies - the rater situation - but I was intensely loyal to my boss who was the indorsing officer and who salvaged the comment. A reclame wouldn't have helped, I don't believe. I don't think they would have paid any attention to it.

COL CASS: You went from there then, you say, to the War College?

LTG OTT: I went to the War College and I'm sure I was lucky to get in under the circumstances, but I think these experiences - the one at Fort Bragg followed by that one in Stuttgart and G-3 - gave me a feeling for the interpersonal problems that are just plain part of life, not just the Army, but anywhere and everywhere you go. And, I see it now working with the civilians I'm with. I see people fighting people for the wrong reasons. But I think I, by then, had determined I had to be very careful that I kept my personal relationships beyond any petty bickering and tolerated whatever shortcomings my superiors might have, in my view, and hoped that they would tolerate mine - a great learning experience.

COL CASS: Regarding your War College assignments there - you were what, about 18 years service at that time? Was that quite early to be going to the War College or was that about what the typical time frame was at that time?

LTG OTT: Oh, I was not unusually early - a little early. I'd say about a third of us were as junior as I was, and the other two thirds were older, something like that. But, nothing remarkable about going when I did.

COL CASS: Which did you go to - the US Army War College?

LTG OTT: To the Army War College.

COL CASS: Was that considered, at that time, the one for a career promising Army officer to go to or did the National War College have approximately equal status at that time?

LTG OTT: Well, the National War College had long held higher status and there even was a period when we would send graduates of the Army War College on to the National War College. That was stopped, but I would say the Army War College in that time frame was struggling to create stature or status equal to the National War College, and was having some difficulty and that most of us who were there really had a feeling that we had not been selected for the National War College, but we were lucky to be selected for the Army War College and therefore, tainted.

COL CASS: I don't recall in looking over your resume when you went to advanced schooling. Had you done that prior to the War College or did that follow in your career?

LTG OTT: I did it in conjunction with the War College, a program that's still authorized. I took a Masters in International Affairs from George Washington, working at night, during my War College time and stayed on after graduation for - I think it was six weeks or something like that. Many of us did that.

COL CASS: Where did you go then from the War College? What was your assignment?

LTG OTT: I was sent to STRIKE Command down at MacDill Air Force Base in Tampa, Florida where I was a plans officer.

COL CASS: What was that - a three year tour then?

LTG OTT: That was a three year tour.

COL CASS: Did you gain anything of value in your later assignments from that - that's a joint command, I know, and I'm sure you've had other joint commands through your career, but did that one offer any insights that others didn't?

LTG OTT: Well, that's the only real joint assignment I ever had, where I was truly in a joint headquarters. My boss was an Air Force colonel. His boss was a Marine brigadier general. His boss was an Air Force two-star, and he worked for a rear admiral. And then there was an Air Force three-star and finally CINCSTRIKE - Paul D. Adams, who was the first Army

officer over me in my chain of command. So, it was an opportunity to see how the other services functioned, how they worked to get to know some of their key people. An interesting assignment; there was a wholesome atmosphere in STRIKE Command when I joined it. It was fairly newly formed. It was only about two years old when I went there and still had a lot of the original talent. The last part of my time in STRIKE Command I was Special Military Assistant to Paul D. Adams and accompanied him on his travels, trips and whatnot, and I would say I learned a lot, you know, of the other services and from an officer like Paul Adams who was tough to work with.

COL CASS: I've heard a lot of stories about him. In fact, I visited STRIKECOM down there, brought some helicopters down there during that time frame. Where did you go then from the STRIKE Command?

LTG OTT: Went to Vietnam. I had been picked by my branch to go to Vietnam and command the 23rd Field Artillery Group. Before I ever left for Vietnam they had juggled assignments in-country around and had given the group to an officer who was already there. I wound up going to Corps Artillery, 2nd Field Force Artillery, as the executive officer. Now in those days there was a general officer who was the Field Force Artillery Commander. He had a colonel as a deputy and another colonel as an executive. I was by then a full colonel and had a really sort of nothing job - very frustrating. War going on all around you and you an executive officer in a headquarters that truly wasn't much involved in the war. The

traditional function at that time in our military doctrine of a Corps Artillery was counter-battery but there were no enemy batteries to attack so we were trying to make work and find things to do, and I spent several months really trying to get a feel for how the war was being fought waiting for my chance to go out and get a command, which I did - 25th Division Artillery. That then put me back in the mainstream of the war.

COL CASS: Would you comment on your impressions of the function, the success of artillery, primarily while you were the artillery commander of the 25th Division? In an environment like Vietnam it was certainly different than what you'd seen in Korea and certainly different than what you had experienced the latter stages of the 2nd World War.

LTG OTT: Well, you're quite correct. Field Artillery had a somewhat different role to play in Vietnam. I would say that we were literally being used to prevent our infantry from taking too many casualties, and I say that by - for example - pointing out that before infantry would make an assault landing into a firebase, we would fire preparation, and the preparation was to assure that if any enemy - Viet Cong or North Vietnamese - were near the firebase that they were unable to inflict casualties on our infantry. We would fire pretty heavy amounts of artillery to suspect areas. . .

COL CASS: H and I's. . .

LTG OTT: H and I's and preps, and then once the infantry was in, the artillery's role was to provide a covering fan for any operations they got into, and in our division we never maneuvered infantry out of the reach of its covering artillery. And, if the infantry got into any kind of a fire-fight, anywhere, artillery was brought in, and since the enemy had no counter to that artillery, we were able to inflict casualties on him and protect our own forces. So, we were being used to fight where the infantry was in a fight, and to try our best to prevent the infantry from taking casualties. We seldom had good intelligence - target intelligence - other than when we were in physical contact with the enemy.

COL CASS: Did you find much of a place for medium and heavy artillery over there? I know from my experiences in going through many, many a prep prior to coming in with heliborne units, normally it was just 105 artillery. Those pieces we brought in by helicopter and put up within range of our assault, but I know in the latter stages of Vietnam we used 8 inch and I believe 175, to a very limited degree, but did you really see a role for anything above 155 over there?

LTG OTT: Well, we - in our area, we used the heavier calibers in almost all of our preps if we could possibly get them in range. We liked the heavy firepower. We felt that some of the positions that the enemy might dig into were vulnerable to heavy artillery but not to the 105's, so we liked that large shell - wherever we could put it in. And we did a lot of firing of heavy calibers in preparations and if a battle was joined

somewhere, we'd be firing the light artillery in close but we would put depth to the fire with heavier calibers. It would be hard to say that this was a total justification for its use, but we felt it was. The 175 was used to a large extent in H & I fires. It could reach into areas that we couldn't reach any other way. It's long range was extremely useful to us. We never used the 175 close to troops except in a few cases to special forces camps that were pretty isolated and hard to reach with anything else.

COL CASS: I think the most exciting and probably beneficial use of the heavy artillery that I saw there was in the relief of L Z Bird. I don't know if you were. . . .

LTC OTT: I know the story.

COL CASS: Yes, sir, and arriving on the scene that night, almost within minutes of their call for help, when they got the word out that they were under large scale attack - 8 inch units were firing in relief of them and trying to cut off the NVA units as they tried to get out, back to the north carrying their wounded. And of course, it was a confusing situation with the 8 inch fires coming in from one direction and the 155 fires coming in from another, and I believe they even had a couple 175 guns firing. Maybe I'm mistaken but the situation was totally confused, and on the other hand the artillery certainly played a big role that night in relieving the pressure from the units on the ground. One

interesting note - I believe that was the first time the "bee-hive"
round was used in Vietnam in anger.

LTG OTT: No, the first time was in the battle of Soui Tre when General Jack Vessey,
now Vice Chief of Staff, was an acting battalion commander. . . .

COL CASS: Okay, I see.

LTG OTT: . . .which was in March of 1967. When was Bird?

COL CASS: Bird was in December of '76, I believe, or it was right around Christmas.

LTG OTT: Not '76.

COL CASS: Oh, I'm sorry. I'm sorry, of '66.

LTG OTT: Well, it may have been then. I always thought that March of '67 was the
first and then - maybe the book here would - on Vietnam - would clarify
that. . . .

COL CASS: Well, we might check that. No, it was definitely prior to '67, and I
recall - in fact, I think General Marshall, when he wrote the book,
LZ Bird, I think he mentioned that they lowered the gun and fired it
point-blank with the "bee-hive" and that it really had a shock producing
effect.

LTG OTT: Oh, no question. Well, the battle I mentioned Soui Tre and that's Soui - one word - Tre, the other, in March of '67, was the final battle of the big operation Junction City. Junction City, up till then had not produced very many enemy casualties. We had a tremendous sweep, all through War Zone C, and had literally come up empty-handed. We had a few little actions here and there, but late in the operation we inserted a battalion with a battalion of field artillery to a fire base, and about the second day after the insertion, there was a very heavy North Vietnamese attack, and "bee-hive" was used. When I got to the scene of the battle, I found the battalion in the fire base, firing charge I and charge II, literally as fast as they could fire. They had quite a few casualties. It's the first time I ever saw so many 105's with flat tires from the RPG's that had come in, but flat tires and all, they were firing like crazy. There was a 105 battery that was about five kilometers to the south of this base, that had been put there to cover the fire base and was doing yeoman duty - firing beautifully. We had 8 inch, 175 and 155's in the area and they were not engaged, and I made that my immediate chore to get those heavier calibers into the battle, which we successfully did. And, the enemy was repulsed.

COL CASS: You were the DIVARTY

LTG OTT: I was the DIVARTY commander. . . .

COL CASS: You had just taken over, probably about then. . . .

LTG OTT: Yes, just a matter of two or three weeks or so. It was kind of an interesting way to earn your spurs.

COL CASS: Yes, sir. What was the largest, most concentrated employment of artillery while you had the command, possibly this instance you just cited?

LTG OTT: No, Operation Manhattan, that occurred maybe two months later. Manhattan was a joint effort by the 1st Division and the 25th Division to attack the possible Viet Cong strongholds northwest of Cu Chi, between Cu Chi and Dong Thieu, and all through that area. The area known as the Boi Loi Woods, we had quite a few maneuver battalions involved and I had the better part of a division artillery and some reinforcing artillery from corps. We fired mass fires and preps, and we attacked everything that we conceivably feel might be worthy of our firepower. I would say we either prevented the enemy from doing anything to us there or there wasn't much enemy there, but that had been an area known as a stronghold of the enemy. I really think we probably ran him out. He left the area because of the firepower.

COL CASS: I recall in looking at the history of artillery employment during WWII, in February of '44, in four days four of the battalions fired over 73,000 rounds. Was there ever any concentrated utilization of 105 or 155 by the units there in Vietnam - or even 8 inch that compares to that?

LTG OTT: Ah, I've got a book that may show where there was such in some of the

latter stages, or up around Khe Sanh, but I never saw any in my part of the war. Nowhere were we involved in continuous firing. I did see it in Korea with - my own battalion in Korea fired over 10,000 rounds in a 24 hour period.

COL CASS: I know at Pork Chop Hill, I think there were nine battalions - two of them being 155's - fired in 48 hours 77,000 rounds. Are there any other observations as a commander of division artillery in Vietnam that stick out in your mind?

LTG OTT: Yes, my period there reinforced very strongly in my mind as a field artilleryman, what I had long considered to be the weakest link - target acquisition. I was frustrated there- the inability to find the enemy, find suitable targets, and I looked at the acquisition means in the hands of the artillery and tried to visualize going back to either Korean or World War II style battlefield where target natures were different, and I still couldn't see the capability to really find the targets. So, I would say that I came away from Vietnam dedicated to do something for the Army's ability to find targets for its guns.

COL CASS: And how did you follow that up?

LTG OTT: I followed that up when I became Commandant at Fort Sill, pushing several of the target acquisitions systems as the top priority projects for the field artillery. Top priority was the Q37 radar and it is now

in production and will be in the hands of troops. I feel good about that one.

COL CASS: Good. We'll talk more about that when we get to that stage of your career. . . .

LTG OTT: . . .at Fort Sill. But my motivation goes back to the frustration of not finding the targets. And, as you know, in the very late stages of the war the North Vietnamese did bring artillery into the northern most districts, and punished the South Vietnamese considerably with their artillery fire. The American units were no longer involved but I was, at that time, working with the Vietnam war in the office of the Secretary of Defense, and we had a great frustration as to how we could silence the enemy's artillery. And, the problem went right down to finding it.

COL CASS: You know. . .that brings up an interesting point. We seem to have a difficult time in our counter-battery mission and yet for some reason they seem to come in on our - or on the South Vietnamese artillery with surprising accuracy, and I can't think that their target acquisition capability was that sophisticated.

LTG OTT: Well, it wasn't. It wasn't. It wasn't a technical target acquisition. The South Vietnamese artillery was in fire bases that had been established and in use for weeks and months, and it was no great skill to have those plotted on your maps, where by contrast we didn't know where they were

putting their artillery.

COL CASS: Yes, they were moving about. You left Vietnam, as I recall, and went as Chief of the Artillery Branch, another - what would appear to be a logical step in the process of later making you a three-star general. Is there anything that sticks out in your mind, and I'm sure there is because there you had a very important role for a year or so in the assignment of artillery officers, and in looking at records of those officers in the artillery branch that were doing well? Is there anything that is significant or important in that period that you would like to tell me about?

LTG OTT: Well, I think there are a couple of things. The biggest thing was when I was notified that I was to become the next Chief of Artillery Branch. I wrote the Chief of Personnel Operations a very strong letter stating that I felt very much opposed to the amalgamation of Field Artillery and Air Defense Artillery, that I had been opposed to that from its earliest inception and I thought that tactically the two branches had different roles, that one didn't learn much by serving in Air Defense that would help him in his next assignment in Field Artillery. And, I told this general that I wanted no part of being involved in cross-assignment of our artillery officers and I respectfully requested that he withdraw my name as the next Chief of Artillery Branch. What I didn't know was that the branch was then contemplating a split and they were looking for somebody who might be motivated to engineer this split. So, I

immediately had nailed down myself as the next man to do the job. My biggest role in this period that I had the branch was the separation of Field Artillery and Air Defense. I supervised the study that brought that about. I brought about the splitting of the individual officers into the various branches. That was the big action in my time. The other action - you mentioned the assignment of artillery officers - I worked hard to see that we were recognizing our talented officers earlier in their careers and making sure that they got career building assignments, and at the same time, writing letters of counseling to those officers whose careers appeared to be flagging, letting them know their status. We said we were not selection boards or anything like that - we were just the guys that make the assignments, you've got some problems and here's what they appear to be, and lay it on the line. And, we sent many, many hundreds of such letters, some of which resulted in a blast from the individual and others a letter of thanks.

COL CASS: Do you ever have any - you mentioned the split of Air Defense Artillery from Field Artillery - have you ever had any regrets with how that was broken out and the fact that maybe some officers ended up in Air Defense that should have been in Field and vice versa?

LTG OTT: No, I think we did it quite fairly. We based our tentative split on the officers background and record, and if any officer came in objecting to our assignment, we switched him if there was any conceivable way to do it. And, we did, in fact, put a number of officers into Field Artillery

who had almost no Field Artillery background, but who did not want to become Air Defense officers. On the other hand, the rank and file who had been Air Defense officers were happy with becoming Air Defense officers. I was personally convinced that separating the branches would strengthen Air Defense. This was part of the worry. Air Defense officers, some of them, felt that being amalgamated with Field Artillery was important to having a viable branch and I said that I felt that the selection rates of artillerymen for the last number of years for all sorts of good assignments and schools and so on, if analyzed would reflect that the Air Defense officer was not doing very well, that it was the Field Artillerymen doing extremely well that made artillery as a branch look all right. And, that by separating we could get the Air Defense Branch to really focus on the needs of its officers. I think this has been vindicated. I think we have had a number of Air Defense generals selected because they were Air Defense officers. We have had Air Defense participation in the War College increase, and so on. I feel very good about the split and about the way we actually made the separation.

COL CASS: It still appears to me that the "air defender," though, has a harder row to hoe by virtue of the fact that in combat he is not the one that's normally up there in the front line, as is the field artilleryman. You still relate field artillery to armor and infantry - the people up there doing the gaining and holding the ground, whereas the air defender - not so much - so it appears to me that would still jeopardize his comparative opportunities for rising to top positions as compared to Field Artillery.

LTG OTT: Well, I think that's very true, and I think the officer who chooses Air Defense as a branch has to recognize it. He is choosing a branch that has a limited scope, but I think the same thing is true if you choose chemical warfare. . . .

COL CASS: Quite - even more so, absolutely.

LTG OTT: Yes. You know, this is an individual, personal choice. The point though that worried us, and it caused the split, is that if you try and make an officer mast of two trades - both Air Defense and Field Artillery, as the Army had been trying to do - you wind up making him a master of no trade.

COL CASS: I would agree with that. From there I believe you went back to Vietnam or Thailand. . . .

LTG OTT: Thailand.

COL CASS: . . .and it looks to me that probably was a job that was a little bit out of your normal progression of assignments. Of course, it's one that probably gave you a wider breadth of experience. Did it really contribute to - was it a valuable contribution to your career? It probably was interesting, I'm sure.

LTG OTT: Well, I guess you could say when I was told I was to go command the Army

support in Thailand, I literally fell out of my chair, because I knew literally nothing of the type work they were doing - this was a command that ran a port, a depot, a transportation net, and an engineer construction group, and a signal corps communications to the air bases. And, I told them, "I'll do whatever you want but I don't see where I am qualified for this job." And, the answer I was given was, "This command is so diverse that nobody's qualified for it, so just go out there and try and keep your soldiers out of trouble, and do what you can to manage and lead, and leave the technical field to the technical people."

COL CASS: And that was a two-year assignment. . . .

LTG OTT: Two years. I enjoyed it from the point of view of being a very different thing but - from a career building point of view - I don't think I grew any in that job.

COL CASS: It's probably a rare instance where an officer goes through a career, even though he may ultimately become a four-star general, where he has an experience, one or two assignments like that. . . .

LTG OTT: Oh, I think that's absolutely right, Stan, and I think that's one of the problems we're having with young officers, today, is a perception they have that you can't afford to ever do anything that isn't career enhancing. The plain facts are you can't expect to always get career enhancing assignments. In the course of our interview, we have brushed over, or

not delved into a number of assignments I've had that I don't think did much for me, and I just think that's to be expected and I think it's important that people understand - that you can't always be in just the right kind of job.

COL CASS: That brings up, then, your next assignment which was equally as diverse from what you'd been doing and that's as the Deputy for Intelligence in the Pentagon. Was that a satisfying job?

LTG OTT: Well, you know it's interesting, Stan. As I said I was surprised and jolted when sent to an essentially logistical job in Thailand, but I was really angry to follow that with orders to an intelligence assignment with the idea that I'm now going to have to go and learn the secret handshake and all the other things that intelligence officers do, from square one, because I had no intelligence background. I was told that General Westmoreland is very careful in his selection of officers to serve on the Army staff, and that he's personally approved me to be the Deputy ACSI, so get going. And I hadn't - I had not opposed the assignment. Don't misunderstand me. I'd learned, as I said, years ago to quit that, but I had simply laid on the line my lack of credentials and they had said - don't sweat it. And the truth is that at that time in our Army, we had very few general officers who had significant intelligence background. It was a frustrating tour, in intelligence. I entered the scene just as CBS had broken the story about the Army spying on civilians, and we spent an awful lot of time and energy in trying to outline what the Army had done, what it hadn't done and why it had done what it had, and so on,

rather than anything constructive - very frustrating. I was so glad to leave that assignment I couldn't believe it.

COL CASS: That - your comment a minute ago about - you questioned some of your assignments at times but you never, of course, as a good officer objected to them - you always accepted them in the end. Do you recommend to a young officer, or even an officer that's two-thirds of the way through his career, if he gets an assignment that he feels is just not so much leading him off of his chosen path that he's mapped out that he feels necessary to become a general, but a job that he just doesn't think he's either qualified for or could be happy in and therefore wouldn't do a good job - do you recommend that an officer should question it and take it to the highest level, if necessary to argue it or. . . .

LTG OTT: Well, let me put it this way. I believe that if the officer feels that he doesn't have the credentials to do the job properly, and is concerned about the kind of performance he is going to render, or if it is the kind of work he actively dislikes for one reason or another (and few people do well in something they actively dislike) then it's quite appropriate for him to take it up and try to get it changed. He may or may not be successful. On the other hand, if his argument is that this isn't the proper career-building step, I would recommend that he just bite the bullet and go on. That's not a good argument. Now, I could be challenged on that from my statement, earlier, that when I was told to stay at Leavenworth, I opposed it on the grounds that I didn't want to have that long a period

in my career away from anything looking like troops. I don't think I was career-building in the sense that you are talking about. I just felt a void in my career. My troop experience was all combat duty. Friends would talk about ATT's, and TPI's, and CMMI's. I didn't know what they were talking about. I hadn't had to undergo those things, so I'm just saying - yes, I challenged one and I think, probably, the reason I had such a difficult time getting that changed is they were reading out of it that the change was desired to suit my career pattern rather than to suit the needs of the Army.

COL CASS: Do you feel our OPMS is putting round pegs in round holes more than our previous system so that we probably have fewer occasions where the officer is unqualified to the job he is assigned?

LTC OTT: Oh, I think we are doing much better, and I think that many of the criticisms of OPMS, and you do hear them, are made in a vacuum without looking at what occurred before OPMS. And, I think, a classic example is what we just talked about when I was sent to ACSI. You see, here I was, essentially an operations type officer - a lot of G-3, J-5 Plans type, staff responsibility. That was really my staff line. Sent from that type of work in STRIKE Command to command in Vietnam, to personnel work as the Chief of Branch to a Logistics assignment in Thailand, to an Intelligence assignment in the Pentagon, and I felt very strongly that I was not being utilized in areas where I had developed staff expertise. OPMS wouldn't do that to a fellow, and I think it's to the good of the

Army and to the good of the officer, both. And, under OPMS you'll find that we do have qualified officers to be the Deputy Chief of Intelligence wherein my time there wasn't one. We're not all the way home, but I'm a supporter of OPMS. I believe it's a good system, I think it's working, imperfectly, of course, but much better than before.

COL CASS: As the Division Commander, then, let's assume you were back as a Division Commander, you'd be perfectly willing to accept the commanders - the battalion commanders being sent to you as selected through OPMS by a selection board rather than being able to pick, either those officers that worked for you before or those that were in your division at the time that you wanted to move in as battalion commanders. You'd be perfectly willing to accept that?

LTC OTT: Oh, yes. I, as you know, was never a division commander but in my command at Thailand, in my command at Fort Sill, and my Corps in Germany I had any number of battalion commanders sent to me to be battalion commanders and brigade commanders. I never saw reasons to challenge the system. In fact, I felt that those selection boards had a better basis for making the selection than the so-called "old boynet." Now, they made some mistakes. There were some people selected for command and still are being selected for command who should not be. But, don't think there weren't mistakes before we had OPMS.

COL CASS: When you finished up as Deputy for Intelligence, I believe you went back

to - well, no, you stayed in the Pentagon and moved up to the Vietnam Task Force?

LTG OTT: Yes, I was Director of the Vietnam Task Force under Melvin Laird.

COL CASS: I know from experience, having been in Vietnam during that period, that that was - many traumatic events took place during that time. We'd moved out all of our ground forces, for example, and we were merely supporting the Vietnamese with their helicopters, and of course, we did not expect - at least those of us that were there did not expect that offensive that took place in - about August of 1972. What were the significant recollections that you have of that time, operating from the Pentagon?

LTG OTT: Well, I took over the Vietnam Task Force just two weeks after the Easter offensive started. This was Easter of 1972 and my job, as my predecessors had been charged, was to get the Vietnamization process along far enough so that US forces could be withdrawn. I was really a coordinator of the many aspects of ending US involvement in Vietnam. Although I had a chain of command, I actually reported directly to Secretary of Defense Laird - I reported to him anywhere from daily to once every three days, depending on his schedule. He gave me my instructions and I executed them for him with a small group, and I would say that that period was one of a sense of fulfillment because we were able to successfully withdraw US involvement, not entirely the way we would like to because we hadn't built up the structure in Vietnam over the years that the Vietnamese

needed to go it alone; political structure more than military. It simply wasn't there and I think we were all uneasy. We knew that our withdrawal left them facing a most dedicated enemy, and most of us felt that the South Vietnamese lacked that sense of basic dedication. But, I enjoyed the assignment and I enjoyed the opportunity to see the upper levels of the Department of Defense.

COL CASS: Did you get involved in the planning for the Son Tay Raid while you were in there?

LTG OTT: No. I did not.

COL CASS: That was kept very close. . . .

LTG OTT: Very close. I did get chances to meet with Henry Kissinger, which was interesting, when he was then the National Security Advisor and his Deputy was Major General Al Haig. That was always interesting.

COL CASS: I would think that at least one tour in the OSD arena, even though it might not impress you as to the efficiency at how our upper levels operate, I would think that a tour there really is valuable and probably indispensable to somebody who is going to go on up to higher positions. Do you agree with that?

LTG OTT: I certainly do. I don't think everybody has an opportunity to serve in

OSD, but at least serve on the Army Staff if at all possible - somewhere along the career simply to see how the government functions, and as you say, it isn't always inspirational.

COL CASS: Right.

LTG OTT: But it's there and it needs to be understood, and I would say that if any officer has such an opportunity, he ought to jump at it. I still run into officers who talk about how cleverly they have avoided Washington duty. I think they made a mistake.

COL CASS: Yes, it's only in rare exceptions that he can move on up to higher grades without having been - without having the benefit of the Army Staff, I would say.

LTG OTT: Yes.

COL CASS: And I can only think of one or two general officers that did, and I really think - I found out in one case there that even though they had kind of advertised they had avoided it, really, way back early in their career they did a service tour there, so

LTG OTT: I know two major generals on the Army Staff right now who had never been in the Pentagon, and both of them finally got caught. Well, I guess we're getting ready to go into the Fort Sill era, and we could save that for another session.

TAPE #1 - SIDE #2

COL CASS: General Ott, as we finished up the last session we had recounted your experiences from your birth, and the fact that you came from an Army family, the fact that you had gone through West Point and through the artillery all the way. We covered your training as a young artilleryman, all of the assignments - early assignments that prepared you to assume those commands and those jobs later in your career that contributed so much to the Army. And, actually, we came right up to the time you assumed command of Fort Sill in the beginning of 1973, and I think that's an important era. And, in this section which we'll actually call Part II of this historical perspective, we'll just dwell on the - on your time spent at Fort Sill, your command there which amounted to three years and four months, and the fact that it took place at a very important time of our Military History. The Vietnam War was just over, we were going through a great rebuilding time in the US Army. We were in the process of reorganizing CONUS, General DePuy had just taken over TRADOC and was making some very innovative changes in the training structure, the Army had gone through a traumatic change from draft to all volunteer Army, and all these things together made for a very crucial time for you to be assuming command at Fort Sill. I really feel that this will play, or will certainly be a significant chapter in our Army history and especially in the history of artillery for those scholars that come along a little later to read. At this time, before we go into your assignment as CO, I would ask you if you could recount from what we have talked about previously, any assignments or anything that was particularly noteworthy that prepared you for this very key artillery role of commanding our

Field Artillery Center and Field Artillery School. Could you do that at this time, sir?

LTG OTT: Yes, I sure can. I think that there were two assignments that sort of molded me into the line that I followed. The first of these was an assignment to the Gunnery Department at Fort Sill when I was a very young captain. I was there for a long time - three and a half years, as I recall, followed by taking the advanced course so, it was four and a half solid years of pure artillery and of real professionalism, and I think that sort of set a basis for my understanding of the Army and of the artillery that I could build on later on. And, the second one was something that happened by pure luck. When I left the Command and Staff College, I was sent - as I had mentioned earlier - to the 82nd Airborne Division at Fort Bragg to command a parachute battalion. I got there just as they reorganized the division and it had no battalions, so my command tour was postponed. However, since I was at Fort Bragg I was utilized for two years as the S-3 of the division artillery, following of which I had my battalion command in Germany. This amounted to three years of real artillery experience at a rather key time in my life when I was a senior major and junior lieutenant colonel, and the S-3 job gave me the added opportunity to build on the professionalism that I had learned in the Gunnery Department. I was working for an officer who did not have a lot of artillery background. He was an Air Defense officer, cross-assigned to command the 82nd Airborne so, he literally placed the training and operations of the DIVARTY in my hands. It was a good experience and one

that I built on quite a bit. Those two jobs, though, are the ones - the Gunnery Department and the S-3 at 82nd - that I believe set the tone for my career.

COL CASS: Yes, sir, I think that's very important and I think it's only appropriate that you, as the man who entered that command in VII Corps at a very critical time, and as we mentioned before, retired as being one of our foremost artillery officers. I think that was providence, to say the least, that you were able to have those kind of assignments before assuming command of Fort Sill. Now, as we get into Fort Sill I mentioned some of the things that made that era so important. I overlooked one thing and I believe, aside from the fact we were going through a critical time in our Army - our restructuring, rebuilding, reorganizing - I believe the Arab-Israeli War took place during the time you were at Fort Sill. I know there were innovations driven by that war, there were probably developments spurred by that war. I know we changed our way of thinking doctrine-wise, probably, in some regards. Well, I'd just like to turn it over to you now, having mentioned these things that shaped that era, whatever way you would like to address your assignment there, possibly starting with the fact that the Vietnam War was just over. In fact, I recall having come home - I was on one of the last airplanes - in May of '73, and you assumed command in June of '73, so I know what a time that was.

LTG OTT: Stan, I think 1973 was a significant turning point in our Army in a number of ways. As you recall, in the summer of '73 the draft expired -

but for all practical purposes it really stopped in January when we quit drafting, although we had the authority to do so. And, we had been talking for a number of years about "bottoming out," from the damaging effects of the Vietnam era on our Army. In my opinion we bottomed out - probably in 1973 - early '73 - and started to climb up then, not years sooner as many have claimed, and then we had the Arab-Israeli War which sharply brought our attentions to a much more modern battlefield than the one on which we had been fighting. So, I think events were propitious for change. I would like to back off one square though and say that when I got orders for Fort Sill I was aware of the personnel problems at the school. For years, top-notch, young artillery officers had avoided assignments there. In part, because they didn't care for southwest Oklahoma and in part because they thought duty at the branch school was not career enhancing. So, before I ever went there I started working and politicking and dealing to bring some top quality people into the school, particularly colonels. I had made an effort before when I was Branch Chief to put some quality majors and lieutenant colonels into the school, and I had learned that unless they had quality colonels on top of them they simply got their careers smashed around a bit. And, you have to rebuild an institution like that from the top down. So, you get good colonels in, and then good lieutenant colonels and good majors will follow. And, I started that months before I ever went to Fort Sill. I had a lot of experience in how the system works. I knew a lot of artillerymen around the Army and I think that the proof of the pudding is the number of generals that were made out of the colonels I took to Fort Sill. You can count them. It is something

like 13, so obviously the system was working and working well. But, it takes this group of firstclass officers to make changes that really work. There were changes necessary in three basic areas - doctrine because we had been thinking in terms of counter-insurgency warfare; hardware because our equipment and money had gone for the sort of devices we felt important in a counter-insurgency battle; and training. Now, there's nothing about the Vietnam era that is of any particular significance as far as training goes. But, General DePuy, for years, had felt that our Army did not train very well, that we had developed a stylized system for basic training, advanced training, training in units, that we were sort of perpetuating because that was the way it had always been done. And, he wanted to take the whole machine apart and go to a different concept that involved such things as analyzing in detail those things a soldier or an officer in a certain grade must know. Then, analyzing how much of that could and should be taught in the training centers, in schools and how much in the units and setting up a system of go, no-go, pass, fail, for critical skills, train those things you can in the schools and training centers, and prepare proper training literature and devices so that units can prepare the other skills. So, the period of General DePuy's tenure at TRADOC, while I was at Fort Sill, was literally a revolution in training and I want to put this in such a way that no credit goes to me, because I simply was doing what General DePuy wanted done and doing my best to do it for the Field Artillery. It was an exciting period for training and training developments. On doctrine, on hardware, however, the burden was on us at Fort Sill because General DePuy had too wide a spectrum to cover, and we were the ones there that had to find out what changes needed

to be made in our doctrine, what new pieces of hardware needed to be brought into our inventory, and get the system going. Now, it's interesting, you can modernize your tactics and doctrine much more quickly than you can modernize hardware or equipment. You're somewhat of an expert in this latter field and you know how very long it takes from the time you feel you need a certain device until it's actually physically in the hands of the troops, and in some cases you run into problems that had not been foreseen and you simply don't get there. A good example, when I arrived at Fort Sill in 1973, they told me that within two years, maybe three, every forward observer in the Army would have a laser range-finder in his hands. Stan, it's almost 1980 and the first FO still doesn't have his laser range-finder.

COL CASS: That's correct.

LTG OTT: A part of that was technical problems. I don't know what the other problems were but it can be "cotton-picking" frustrating, because you know and I know that with that device, something that simple, we would cease having to adjust artillery fire. We can go into "fire for effect" on the first volley or at the worst on the second volley. And, we experimented with this at Sill with a prototype device, deliberately off-setting the first rounds, lasing, measuring the angle, lasing to the target, and the fire was immediate and very effective. So, this little gadget would revolutionize adjusted fire, and yet we still don't have it. I cite that because as I look at all of the hardware items that I

worked for and tried to get priorities and money to support, I find very few actually in the field today. But, let me go back then to where the changes could be made - the doctrinal side. There were a group of us who felt that we had picked up some very bad habits for artillery out of Vietnam. As you know, there were a number of instances of artillery firing in error, and accidentally killing friendly troops, or killing Vietnamese civilians. A lot of different causes for these errors. I think perhaps one of the basic problems was that we were fighting for the first time without anything that resembled a front line, that instead of being safe when you shoot across the line you were only safe when you were actually on your target, much of the time. And when you have people - tired, slightly confused - mistakes do get made. The result of this was super caution. We found checks and double checks in fire direction centers and in firing batteries, just to be absolutely certain that no error was made. You can't have checks and double checks without paying the price, and the price is time. But, along with that price was a loss in the sense of urgency in delivering fire. Now, in my early days as an artilleryman, when someone yelled "fire mission" everyone's fur bristled. We really kicked up dust and gravel to get to the guns, get to the firing charts, get the rounds on the way. A lot of that urgency was lost. We found that we had to make some doctrinal changes to restore the sense of urgency, at least as far as we could. We set up a task force under Colonel Paul Pearson, who's now a general retired - Paul Pearson, analyzing the fire request, the language in it, the actions in the fire direction center, the firing battery, the executive post, the gun sections - the whole chain, and he brought a number of changes in, all of which, if properly

implemented, made a significant difference in the responsiveness of our fires. We did this to also reinstill this sense of urgency that I thought was as much at fault as our tactics were. Along that line we looked at the peculiar problem of mobile mounted warfare of the meeting engagement. Classically, we have thought of war as being a meeting engagement between forces and once they meet and the battle is joined, they stay met, and the battle stays joined. Not true in our new warfare. In our new warfare there are a series of meeting engagements with break-offs, followed by another meeting engagement at a later time, as the forces continue to maneuver and try and find some advantage one over the other. So, we looked for a way to make artillery fire more effective in the meeting engagement, and from this came the concept of the dedicated battery, whereby a battery of artillery was given the job of supporting a company of armor or infantry, and for the period of its dedicated role it offered fires to no other command. They literally sat with rounds on the loading trays prepared to fire. The dedicated battery, also, tried to reinstill the old sense of urgency so, you can see, we were hitting that from a number of different angles. We looked at our heavier artillery and found that, traditionally, when it was not firing a mission it sort of "stood down." We thought this was not the best for responsiveness, so we established a system whereby every battery would have one or two high priority targets -- in the sense of the old World War I barrage fire, where every time the guns finished their mission they went back and laid on their barrage. Well, we laid on some high priority targets. Different batteries would have different targets, but these were suspect locations where we may

need to call for fire immediately. Ammunition was prepared and was right there, either in the loading tray or right beside it. We found that when a battery was adjusting - let's say 8 inch howitzer battery - was adjusting fire, the non-adjusting pieces would simply stand by. We had them load and be ready to shoot so when the fire for effect order came they wouldn't be holding up the battery. We were making doctrinal changes all - in that area - oriented toward getting more responsive fires. I must say I still feel a little uneasy that the young artilleryman today simply doesn't have the sense of urgency that I think he should have, and it's difficult to get that reinstilled. We're still working at it. We're still not there. I think we made some giant strides. We've made the tactical changes, doctrinal changes, eliminating exec posts, speeding up fire command systems, the dedicating battery, the non-adjusting guns - all pointed at one goal, you know, to get the fire out there faster but don't lose our accuracy.

COL CASS: Is it possible that - you talk about your concern about the lack of sense of urgency in delivering fires - is it possible that our increasing reliance on fire computer systems, automated fire direction equipment - is it possible that the officer and enlisted man in the loop is getting so dependent on that that he's losing his personal attachment to the job at hand?

LTC OTT: Well, that could well be. We have tried to argue all along that the use of many of these devices would speed our delivery of fire. Nevertheless, there can be that impersonal feeling that it's in the hands of a machine and not a man, so the man loses his sense of urgency.

COL CASS: Another thing I wanted to bring out here - ask you about while we're in this area of doctrine change - you talked about a dedicated battery awhile ago and that triggered my attention to a similar term that I've used for a long time - dedicating a battery to a particular type mission. You and I had discussed this over the last year or so, I believe, and it kind of carries over to, probably, your next topic and that is - hardware changes. Take 155 artillery, for example. We not only have the conventional rounds which - they fire HE rounds they fired for years and years, but now we've got rounds that deliver scatterable mines, we've got smoke rounds - that's not real new - we've got improved conventional munitions for the 155 units, and now probably the most important of all we have a precision munition - Copperhead - that is strictly a 155 mission at this time. Now, while we're talking doctrine, did you get involved during that period at Fort Sill with an in-depth look at how your doctrine will change having all of these specialized munitions at your disposal, and whether or not one unit should be dedicated to firing one type or must each unit be capable and ready to fire all types of munitions? How did you look at that in that timeframe?

LTG OTT: Well, you've got to appreciate that some of the rounds you're talking about are not yet in the hands of the troops. We don't have the scatterable mines, the Copperhead, yet, so the specialization of batteries is a future development. There's been a study recently run called "Functional Specialization of Field Artillery" that advocated a degree of specialization, but about all that was accepted out of that was some specialization of headquarters rather than the batteries themselves. I don't think we know

yet whether we are going to be able to handle the proliferation of munitions without specialization. In my personal opinion, I don't like to see batteries specialized. I think they should be specialized at times. There's a certain period in the battle when something like the dedicated battery makes sense. We may find that with the Q37 radar coming in to the system that there will be times when we'll want some batteries tied in directly to the Q37, ready to fire counter-battery fires as responsibly as possible. Now, one of the reasons for that - the potential enemy uses multiple rocket launchers that displace after they fire, and if we are going to be effective in counter-battery against those we must engage them literally while the rockets are still in the air and we're close to being able to do that if we have a specialized battery and a closed loop system, whereby the radar goes right to the guns and the guns fire, or the radar goes right to TAC FIRE that goes to the guns and the guns fire. TAC FIRE does not take much time and it does the thinking for you of which guns can best reach the target. But, we'll need guns ready to shoot, and I mean very ready in that sort of a situation with a high "pucker" factor. The specialization of Copperhead has been controversial for a long time and we've run, as you know, the HELBAT series of tests at Sill. We really still don't know whether we're going to be forced to dedicate a gun to Copperhead missions or not. We may find, and our analysis at my time led to this, that within a firing battery there will be a gun, or perhaps two, that are dedicated - or that are the Copperhead guns, but they'll fire another mission until a Copperhead mission comes. When it comes, they stop. Their fire immediately goes

to Copperhead. Now, that will require the battery fire direction center to, perhaps, handle two missions at once - Copperhead mission and whatever mission the rest of the battery is already doing. We have the capability of doing that, particularly with the battery operating center, the BOC, which is sort of a second fire direction center. Actually, you can do it within the FDC itself. It's just a little trickier. But, we may well have to do something like that rather than have every howitzer in the whole inventory carrying Copperhead rounds and ready to shoot a Copperhead mission. Copperhead is going to always call for responsive fire.

COL CASS: Before we get on into discussion of material and development of new material while you were there, I recall that coming back from Vietnam in '73 we returned with a unit called Aerial Rocket Artillery. It was later named Aerial Field Artillery. What were your impressions of the value of that type of unit in Vietnam and how did you look at it then in the era following Vietnam from a proponentcy standpoint at Fort Sill? Does Aerial Rocket Artillery or some kind of Aerial Field Artillery have a place in the future battlefield?

LTC OTT: Stan, we had an awful lot of heartache over just this issue, the Rocket Artillery. When I went to Sill, I had a battery of Cobras and we used them for a lot of doctrinal tests. General Shoemaker, down at Fort Hood, was a great believer in Rocket Artillery and a staunch supporter of keeping it in Field Artillery and not letting those gunships -

artillery gunships - go to other proponentry, but the plain fact was at that time that was a direct fire weapon, and as a direct fire weapon it was a little different than anything else the Field Artillery had. We tried to develop a technique for indirect fire with the Rocket Artillery batteries so that they could provide artillery support to air mobile units, such as the 101st Mobile Division, but we never came up with anything that would really work well. And, we still wound up, essentially, going in with direct fire. Now, the FO and the fire support officer can, certainly, on their fire control nets bring in rocket artillery as a form of fire support, even though they are actually firing direct fire. It becomes fire support to a maneuver force but, in the process of this whole doctrinal discussion the use of rockets dropped off distinctly in the helicopter forces as they went to the Cobra with the TOW missile and it became essentially a tank killing device, rather than for rocket assault, and today we're - as I understand it - we're generally looking on helicopter rockets as a means of suppressing air defenses so the Cobras can shoot their TOW missiles or Hellfire, or something to destroy tanks, and the idea of providing fire support in the more general sense with rocket gunships seems to be dying out. But, anyway, I lost the fight. I sat in on a big conference hosted by ACSFOR - General Almquist, who's an artilleryman, and we laid out all the "pro's and con's" that were keeping Rocket Artillery in Field Artillery, and with the pressures on at that time to improve the use of the helicopter on the armored battlefield as an anti-armor weapon, I lost. And, I didn't feel too bad about it. I could sympathize with the doctrinal people that it's pretty tough to have some helicopters

out there armed with TOW's and engaging armor, and others belonging to a different chain of command and operating under different frequencies, looking for fire support type roles, many of which could well be suppression of air defenses so that the TOW weapons and Hellfire could do their job, and it's kind of difficult when you get two chains of command, and two different radio systems.

COL CASS: Still in that context - I wonder if it bothered you to have, as a part of division artillery, a battalion as we did in Vietnam - as we still have in the 101st - devoted to Aerial Field Artillery, where only a small portion of those officers assigned are artillery officers. They're pilots, basically pilots. . . .

LTG OTT: That's right.

COL CASS: . . .and now under a speciality system they're all a "fifteen," and, you know, it's only coincidental that one of them will be Field Artillery. From that standpoint, do you think that detracts a little bit from the artillery mission? I'm sure it complicates your command control and communications. Do you have any other comments on those two aspects?

LTG OTT: Well, I think the unfortunate truth is that the helicopter pilots today don't belong to a ground arm anymore. Their careers are so demanding, their duties are so demanding that we simply haven't found

a way to keep them up to speed as a ground officer and as a helicopter pilot. And, I think a very large number of them have motivations to fly, and not very deep motivations to be infantrymen, tankers or artillerymen, or whatever, and I understand that. I appreciate it, in fact I like to see professionalism and they are professional pilots. As a result they have limited understanding, really, of the artilleryman on the ground and how he's trying to use them, because they have not experienced that themselves. So, I think there is a detraction but I've always been proud of the way they could do the job. Now, they have impressed me with their capabilities, with their courage and their willingness to go wherever the artilleryman sends them and do the job he's supposed to do. And, I guess it doesn't taken an artillery officer flying a helicopter to manage to fire an artillery type support mission very effectively. The artilleryman is behind the scenes guiding him.

COL CASS: Right. I think the main thing would be the appreciation that that pilot, if he were an artilleryman, the appreciation he would have for the mission that he's doing out there. Some aviators have never worked with artillerymen, never been to artillery school and never studied the roles and missions of artillery. I've observed this first hand in two tours in Vietnam, and you'd realize they didn't at all times appreciate what was being done out there by that artillery battalion commander, that division artillery commander - but, that's getting a little off the point. . . .

LTG OTT: Well, I think, it would be desirable if you could have artillerymen doing aerial rocket artillery but, I don't know that our personnel system can support it and we seem to be making it work the way it is.

COL CASS: Yes, I agree with that.

LTG OTT: Let me go back to one other doctrinal change that I think was significant that was, really, pretty much my own idea, Stan. I became concerned with the frontages of our infantry and armor companies. We had evolved from an Army in World War II where the company frontages were relatively small, and we had established that it takes a forward observer with each company. As the frontage got larger and larger and larger, we reached the point where that artillery forward observer could no longer provide observed fires, or adjust fires to support all elements of the company he was with. I wrote General DePuy a letter on this and I told him I thought we needed to make some kind of significant change in the forward observer party that would permit us to cover the broad front, and I pointed out to several possibilities, increasing the size of the FO parties, the use of sergeants who are dedicated, or specialists that are dedicated to observing fires - some such technique. General DePuy agreed and we established a panel that met and they came up with an excellent solution of using the mortar observers of the infantry and armor as part of the Field Artillery's forward observer team. From this came the concept of the fire support team, or the FIST, which I think has made a significant doctrinal change in our handling of

adjusted fires. I might say that General DePuy's one concern, and I shared it, was that the artillery lieutenant should not become a manager, and sit behind the hill, or inside an APC and orchestrate the movements and observations of his sergeants who would be the eyeballs adjusting fire. Once you reached that you would have lost the real feel for the taste of front line battle that is so important to making the artillery really part of the team. And, those artillery lieutenants, God bless them - I was one in World War II - have simply got to get shot at. They must see what an enemy looks like, they must know what it feels like to have fire coming right at your position. Otherwise, you lose that old sense of urgency and you become complacent when you feel - well, I've got the right sergeant at the right place, on the right frequency, I can relax. He can't ever relax, so the fire support team is a great concept but we've got to keep the lieutenant's heads up.

COL CASS: You provide me a lead in that's not necessarily totally applicable to our topic here, but having just read "The Army Crisis in Management" by two gentlemen named Gabriel and Savage, that's one of the points they stressed in there, particularly in Vietnam. They say that in Vietnam is where the disintegration of our officer corps really started but, particularly in Vietnam with the policy of rotating commanders - and your battery commanders are part of policy - they stayed on the job probably six months and then a new one came in, so that the maximum number of artillery officers were able to experience combat. They'd go back home, another would be taking his place, or during the other six months they weren't in command they probably were S-3, or

something, whereas that poor cannoneer out there stayed for twelve months, in the same unit. He may, very easily, see three commanders in that time. And, that is bound to leave kind of a bad taste and probably the result of that was a lack of unity and the integrity that a unit has historically needed in battle to make them truly effective. Would you comment on that?

LTG OTT: Well, I don't like the term "started the disintegration of our officer corps." I think our officer corps took some awful bad lumps during and after Vietnam but it didn't disintegrate, and I think it's pretty healthy today. No question but that rotation of officers in their assignments is bad on an outfit. There aren't many of us around now who served in World War II, but in World War II we went overseas as a unit knowing that we would be together as a unit until the war was over. We wouldn't be getting a new battery commander or a new battalion commander, new first sergeant, unless the ones we had were killed, wounded or fired for being incompetent. And, there was some of that but not an awful lot. By and large, units maintained their integrity. Infantry units had a high turnover in their lower ranking soldiers and their junior officers because of the stresses of combat, but the structure, by and large, didn't turnover. First sergeants stayed on. There'd usually be some officers in the unit who had been with it all along. So, we did have the very strong unit feeling you speak of and there's no question in my mind that our rotation policies in Vietnam were bad. Frankly, I would like to have seen them stay at least a year in their command tours, and I tried to keep longer tours in my unit but you can't do it without a theater-wide policy. I

suppose any future conflict will either be in a nation at war period in which case there won't be any rotation in units, or we'll be back like we were in Korea and Vietnam, and we should learn the lesson that six months is simply too short a time.

COL CASS: The point you made that the lieutenant and the captain can't afford to isolate themselves from that cannoner up there by utilizing this new equipment - he must be out there and suffering the same hazards and dangers in war as his men. That's another point that was brought out in the book, especially in Vietnam. Not so much the company/battery level commanders but those commanders that, because of the helicopter, they were not subjecting themselves to the same danger as the men. Therefore, we had - percentage-wise - fewer officers killed than enlisted men than in any other war. That was another contribution that they attributed to the decline of the quality of our officer corps in particular and really our entire Army.

LTG OTT: Well, I wonder if that's really true of infantry battalions? Above battalion level, perhaps it is. I don't know what the statistics are but the infantry battalion commanders that I saw were for the most part pretty much exposed to that battle.

COL CASS: I tend to agree. That's one point of contention that I had with their book, but I did not know of any battalion commanders putting themselves in helicopters. . . .

LTG OTT: No, that was normally the brigade commanders.

COL CASS: That was brigade and then of course, we always saw this layer of helicopters up there. You'd almost always have this brigade commander circling around. Layered above him was the division commander and then we had other higher staff officers come in and it became kind of an air control problem. A lot of our senior officers - senior commanders watching the battle from above.

LTG OTT: But the infantry battalion commander was, generally, down on the ground, at least in my division. I think they were in most of them.

COL CASS: I tend to agree. . . .

LTG OTT: Anyway, the doctrinal point I wanted to make was that the artillery, during my time, made the big change to the FIST team, the fire support team, with its changing concepts of how to provide supporting fires. Oh, there probably are a number of other doctrinal changes, Stan. I don't have a list in front of me, but I think we've touched on a couple of the main ones. There's one other that certainly should be mentioned before we go into hardware and this was the doctrinal change to put counter-battery fire into the division artillery. Classically, counter-battery was a corps artillery mission. Support of infantry was a direct support artillery battalion mission. The division artillery generally was involved in what we might call close-in interdiction. An awful lot

of fire missions handled from division artillery came from our aerial observers. They were looking for anything beyond the view of the forward observer that could be engaged. When we felt that the front of a corps was too wide for effective control of counter-battery at that level. The corps artillery guns could not reach across the corps front. They could barely reach across the division front so, it looked like the time had come to push counter-battery down to division level. Incidentally, quite a few of our allies have already done this, and had done it before hand, but it was a very tough decision for us because it made a big question as to what the role of corps artillery would be in the future, and I'd say that's still not fully solved. We're still working on it, the full role of corps artillery, but putting the counter-battery into division did something else that we were very excited to have happen. We had, literally, lost our target acquisition capability in our Army, both hardware and troop units. Our classic structure called for a target acquisition battalion in every corps. This battalion was to have sound base, flash base, radar, survey and metro. If you looked at the actual structure of our Army at the time I went to Fort Sill, there were four separate target acquisition batteries in Europe - the remnants of two battalions, there was a battalion of two batteries at Fort Bragg, and that was it. The four batteries in Europe had been stripped of their flash and sound, they had nothing left but radar and that was the old Q-4 radar that is pretty useless. When we doctrinally put the counter-battery role into the division artillery, we also made a change in the organization of the Army that put a battery of target acquisition in

each DIVARTY. Now, this is a very significant step. Traditionally, whenever there was a force structure squeeze in the Army, divisions were spared the cuts. The cuts went to non-divisional elements. They ranged from support units to whatever, and Field Artillery, Corps Artillery, artillery target acquisition was always vulnerable to force structure reductions. Putting that battery in a division artillery gave it a degree of protection. It also brought the role of artillery and counter-battery closer to infantry and armor, to get it down there in the DIVARTY. And, the other thing we thought was significant was that perhaps when you face an enemy who is going to outnumber you significantly, and who really goes for artillery in a big way, you will find times when your guns must all be used in a counter-battery role, literally all, for perhaps only an hour or two, but you're at a time in the battle when his guns are causing such damage to your direct fire anti-tank systems that you have to get them off your back. We felt that by putting the DIVARTY commander in charge of counter-battery and by doctrinally always giving him control over the corps artillery in his sector, literally command - operational command - he could displace them and shoot them as he saw fit. This division artillery commander had the tools and the authority to put all of his fire into counter-battery or, conversely, if there was a rupture about to take place in his front line, he could put everything into this sector - the area of that rupture - using nobody in counter-battery. So, the fire power could be easily massed into a mission where needed. But, I think this was a very significant change, and with it, of course, we activated a lot of target acquisition units. We now have seventeen

batteries in the Army compared to the handful I mentioned before. We have re-installed the flash and sound base. They're not equipped yet. They're getting equipped now. The new radars are coming off the production line. We'll soon have a superb radar capability and I think in the not too distant future - in one or two years - we will have really changed our target acquisition capability, the most needed improvement in our whole Field Artillery, and made a major change doctrinally and with hardware.

COL CASS: I couldn't agree more about target acquisition being, probably, our key element in the whole picture.

LTG OTT: It's been our weakest link.

COL CASS: Yes, sir, and it's becoming more so as we increase the range of these weapons such as the general support rocket system where we're going out to ranges that we just have never dreamed about firing to before. We still don't know exactly how we're going to be able to utilize all that range and acquire targets accurately enough that you can go in with a volley of free flight rockets such as MLRS and attack the target. We have SOTAS on-going, of course, and we have RPV's being developed, which will be our saving grace if we're going to be able. . . .

LTG OTT: Well, . . .and the Q-37 radar. . .it can reach back there.

COL CASS: Let me - since this has been my business - hardware - for the last seven years, let me just tick off what I know about where the new pieces of artillery hardware that either got their genesis during the period '73 - '76, or were even further along in development and we have them in the field now. I always tend to think of them in three different areas - one, of course, is target acquisition capability, and then we have new fire direction aids - computerized aids, and then, of course, we have the other lump which is the new ammunition and new weapons. You already talked about the TPQ-36, the radar. . . .

LTG OTT: 37 was counter-battery. . . .

COL CASS: . . . counter-battery, and of course, 36 was the mortar. . . .

LTG OTT: It has a counter-battery capability.

COL CASS: . . . for a short range. . . .

LTG OTT: Oh, not much shorter - you have to narrow its scan. It doesn't have as high a reliability of intercept and it doesn't have quite as good an accuracy of location but it's really a fine counter-battery radar. It just isn't as good as the 37.

COL CASS: Of course, that's an area where we're coming right along in and they are coming out in the field in the area we discussed awhile ago of fire

direction capability. The TACFIRE system that we now have some of in the field, brings the capability to the division artillery that I guess we just literally never had before. It gives you the capability of more quickly assigning targets, telling you what units are in location and, probably, if I'm not mistaken, even giving you an aid as to what type ammunition to fire.

LTG OTT: It does. It will - if you feed a target into it - either electronically, for example, from the Q-37 or from a forward observer - whatever means, if you tell TACFIRE that you have a target, or even a suspect target. If it's suspect it'll analyze against other things it's been told, but once having that target it will determine what it takes in the way of firepower to achieve the level of casualties that you programmed. Automatically, it's 30%. That can be overridden and then it will find out which units it has in position that can fire to achieve that level of casualties and send out fire orders, all of this in micro-seconds.

COL CASS: Amazing. I guess, of course, you had the FADAC in the battery and now we've got the BCS, the battery computer system.

LTG OTT: Let me be sure that everyone understands the big jump that the BCS will give us over the battery display unit. We want to position our guns to fit the terrain. We have classically put batteries of field artillery into a lazy "W", or some sort of formation that would provide for an effective sheaf when they are fired parallel, hitting in enemy territory.

We don't think we can afford to do that in the future. With the battery computer system we are capable of computing individual fire commands for each of the pieces in the battery, taking into account their location, their relative shooting strength and the configuration of the targets they are attacking. And, the individual firing data is transmitted by radio link to displays at each piece. So, every weapon will be firing, perhaps, a few mils different deflection and a few mils different quadrant. With BCS we will gain tremendous flexibility in occupying position and enhance our capability to put our sheaf the way we want it on the enemy. Now, BCS doesn't think like TACFIRE but it does compute firing data.

COL CASS: Then in the area of guns and ammunition there was probably even more going on during that era. I know, of course, the evolution of the self-propelled 155 - the 109 series - was taking place during that time. You had a new family of ammunition coming along in 155 to include the scatterable mines which, as you mentioned earlier on, aren't in the field yet. It included Copperhead, which will be in the field, hopefully, in the next couple of years and a series of improved conventional munitions, or sub-munitions, in the 8 inch self-propelled, the 110. I think during that period we came along with the 110-A2, probably.

LTG OTT: We did.

COL CASS: And I think probably with the rocket assisted projectile for 8 inch, and also the new cannon for the 110 and the 42E1, so those are certainly

advances in those two guns. I think probably in the 105, M102. . . .

LTG OTT: The 102 had already been done. We did work on the 204 - the soft recoil - and it's subsequently been dropped.

COL CASS: Yes, sir, put on the shelf, I guess. There's been a lot of work done, I know, in the 483 common cargo round for the 155. . . .

LTG OTT: You didn't mention the M198.

COL CASS: I was just getting to that. That's probably the biggest recent step forward in field artillery weapons.

LTG OTT: Yes, tremendous improvement.

COL CASS: And then, of course, it all rounded out with your series of rockets which were well along when you were there. The LANCE was well along, but I believe, probably, while you were down at Fort Sill you had the study group that came up with the initial recommendations for the General Support Rocket System.

LTG OTT: That's correct.

COL CASS: Citing those things, would you just maybe in connection with hardware, tell me how you established priorities for where your greatest emphasis should go, as a professional artilleryman?

LTG OTT: Well, Stan let me say that - earlier we talked about training. General DePuy was driving that, so training changes were easy to make in the sense that there was no resistance. You simply modified, put out the stuff - a lot of work involved - but it was an easy system to fool with. Doctrinally, we felt that we could make changes in the artillery tactics and as long as they made pretty darn good sense, we could sell them and we did, and people were buying off on the FIST and the dedicated battery, and the counterfire at DIVARTY level, and all of these things. We had a lot of authority, a little bit of support here and there; you publish a new field manual and the change is made, even with a training circular. But, when you get to the field of hardware you get to the field of intense frustration by not only the commandant of a service school, but I believe everybody involved in hardware, in DARCOM, TRADOC, or wherever - the Pentagon itself, because hardware involves so much money. And, there are a lot of reasons to challenge where your money should go, and I would say that I felt frustrated the entire time I was there over my inability to see progress in hardware comparable to progress in other areas. I felt, from the earliest days, that we really had to have our "ducks lined up" or we'd lose the funding support, and indeed that is still the case. So, we had to look at the exact groups that you picked out - what do we need in target acquisition, what do we need in fire control, and guns and ammunition, and establish within each of those categories, priorities, and then establish, at least at the upper strata, overall priorities to be sure that we got the money put into the projects that most needed support. And, to say how we accomplished

that would be to say that we met, probably weekly - maybe every two weeks at times - with all of the materiel development team at Sill and went over the whole list of projects and where they were and how they were coming. You see, funding is a function to a degree of how soon the system is coming into the inventory. If you have a piece of hardware that you think you'll be able to produce next year, then you need to have funds to buy it next year, but if it's still five years out, you simply need development funds. They come from a different pocket, as you know, but you have to doctrinally show that you need to put this kind of money to develop this certain piece of equipment. That seems to be easier to do in the earlier stages of a piece of equipment than in the latter stages. There's a lot of support for kind of "far out ideas," everybody hoping for a technological breakthrough in some exotic piece of gear. As you get closer and closer to it, then they begin to question its utility. For an example, Copperhead. We, in the early days, had all kinds of support for a guided artillery shell. Gee, that sounded great, but when we started getting down, really close to producing and buying this guided artillery shell, many challenges as to whether it was as effective as a tube launched TOW, or Hellfire, or precision bombs, or whatever. So, we had to go through rather excruciating cost of effectiveness analysis and computer runs, and so on, and you get a little bit of a jaundiced view of that. You know, if you run a computer war game with Copperhead and without Copperhead, and find that at the conclusion of the war game, Copperhead didn't enhance your capabilities, you don't come away with a question mark as to whether Copperhead was

any good or not, but whether that computer war game was any good or not, and your analysis is then directed to the computer problem. And, you can often find that by golly, the computer program to justify the piece of equipment that you believed in just on the hunch that this was the way you ought to go. And, you know, that's really the wrong way to live. But, Stan, we lived that way. We - it's like they used to say in the Pentagon - every study is written to support a foregone conclusion. I think there is a lot of feeling that you know you need a certain new piece of target acquisition equipment, and if you can't prove it with the computer program you'll build one that does prove it. And, well, I'm exaggerating but there's a degree of - an element of truth, I think you're well aware of, in what I'm saying.

COL CASS: I agree with that, and I'm not so sure in some cases that's justified though. I get awful uneasy in depending on computer programs to make our decisions for us and that's specifically what's happening. I would rather see people like yourself, General DePuy, General Starry - those people who are renowned for their background and their expertise and their operational judgment. I'd like to see more decisions made on the spot by you kind of people rather than depending on computer programs done by some "doctor of something," just out of college. I just - I get awfully uneasy that we are getting away from true operational judgment in making those decisions.

LTG OTT: Well, I think you're right and I think we're putting judgments on

hardware buys into scenarios that have computer runs to give proof that this particular piece of gear is good or not when we may darn well know, you know, just from our experience that this has just got to be - for example, I put, from the day I arrived at Fort Sill, the Q-37 radar which would locate enemy artillery, as the top priority need of the field artillery. I just knew that we had to find his guns, find them accurately and quickly to fight effectively in a sophisticated war. If any computer program had not supported that, I would have told you immediately, that computer program is wrong. I know I am right. Now, that's a judgment against the computer. It's too bad, but we feel that way. In fact, the computer programs - everyone of them I ever saw completely supported this contention. You know, this just perfectly convinced me that this was indeed our biggest need. But, we had a tough time, Stan, because of the fact that we had not really pushed for the kind of hardware improvements that were needed for the modern mechanized battlefield during the era of the Vietnam War, so when we switched gears and put all our emphasis into this sort of technology, it looked like we were building up a tremendous reequipping of the Army that the Army could never afford, and the Army knew that and that's why it went with it's "big 5" and so on. And, as it turns out some of your developments take a lot longer than you had thought, so the "bow wave" is never quite as fierce as it looked like it was going to be. But, let me give you an example of a technology that just, I think, gave me more fits than anything else - that's TACFIRE. TACFIRE had been conceived and developed quite sometime before I arrived at Sill, as a means of

automating a very complicated field artillery algorithm - where are the guns, which targets need to be attacked, with how many round of what type, and doing that quickly to achieve the level of effect that you desire. When I arrived the TACFIRE software was in terrible disarray and - because it was more complicated, I guess, than anybody had ever thought it would be, it didn't work. We spent some months working with the developers getting that software to work. In the meantime, the hardware, which was designed sometime earlier, was beginning to be questionable as to whether it was really the latest technology. That's questionable today and that's probably one of the factors in the recent decision to cut further funding for TACFIRE. Buy, my problem was to get any funding or to even get the idea across. I found no problem at the ASARC. The Army believed in automating the field artillery problem and was willing to go along that TACFIRE, as we had developed it, would do the job. Maybe it wasn't ideal but it was better than a ten-year development to find something better. I got ready to go before the DSARC and, in a rehearsal, the Vice Chief of Staff, General Kerwin, told us that the way we were presenting this simply wouldn't fly. We had to do something to make a more credible pitch. So, I threw away my notes and wound up standing up in front of the entire assembly group that make up the DSARC, and as you know those are mostly civilians with very little military operational background, and tried to lay out for them in the simplest terms I could, the picture of the battlefield and the role TACFIRE would play and why we needed to have it. And, it sold, but it went to just what you're talking about - there was no computer run. This was simply a judgment call with an experienced explanation of why

we needed that system. I wish I could have gotten in front of Congress this year. I believe I could have sold them and we wouldn't see it cut from under us. It's a big need for the artillery and if you don't continue to buy TACFIRE, we're going to have to come up with something else to do that job and fairly soon.

COL CASS: With a comment on that last remark - we lose programs, delay programs so often for the lack of the right person to articulate the need and the requirement.

LTG OTT: Well, I saw the low funding for scatterable mines that bothered you and me a little while back. Somebody has failed to articulate the utility of scatterable mines and to see it. Today you have to run a darn computer program and a computer war game that shows how tremendously effective these scatterable mines will be on the battlefield. I think that's baloney. You know and I know that we need a scatterable mine, delivered by our artillery that has great utility. Now, we'll prove it in battle someday.

COL CASS: You mentioned scatterable mines. How do you - isn't there a question about proponency of utilization of scatterable mines. . . ?

LTG OTT: I understand it's been resolved. It's been given to the artillery.

COL CASS: Well, very good - scatterable mines?

COL CASS: Yes, so we're now separating those mines that we package in an artillery shell from all those that are emplaced by hand.

LTG OTT: And, frankly, I don't know out of that where the air delivered mines fell - helicopter delivered. It well could be in the engineers. I don't know. That particular mine field is usually delivered behind friendly lines where you need to create an instant mine field and then you withdraw through it, where the artillery delivered mine field is delivered behind enemy lines. Now whether they made that line or not, I don't know.

COL CASS: As an artilleryman you would support the M-56, the artillery delivered mine, being an engineer mission, wouldn't you?

LTG OTT: The aircraft delivered mine being an engineer mission? Yes, that wouldn't bother me as an artilleryman.

COL CASS: Yes, I would think so. I want to add - throw something else in that you treated awhile ago about your agonizing over supporting a development there at Fort Sill. You as the commander of Fort Sill were the true TRADOC user for artillery weapons and equipment and, therefore, it should be your voice that was heard by the Army Staff, and the OSD Staff, and etc. In six years in the building - in DA and then OSD Staff - I so often got the feeling that what we were hearing from the user was not really the user - it was TRADOC headquarters. Now, I

know that happens, just out of expediency sometimes, and some action officer at TRADOC will give you the TRADOC position, or just because they're short of time it will be developed right within TRADOC when you might be sitting down at Fort Sill as the real user of artillery equipment, working feverishly on something that they have already passed by, at TRADOC Headquarters, and submitted to the Pentagon. Did you ever get that feeling that you were being left out of the user loop at the eleventh hour?

LTG OTT: Well, I don't want to be critical of General DePuy and my good friends that were in TRADOC but I think that, inevitably, when there is a layer between the commandant of the school who does feel himself to be the user, and the decision-making Pentagon, that layer is going to make its presence felt, and yes, I think there were times - some of them probably caused by geographical proximity when my calls and my desires and my arguments were being articulated by people from TRADOC and not by me. I didn't like that but there wasn't a whole lot I could do about it.

COL CASS: It's facts of life, I guess. . .and it's going to happen. . . .

LTG OTT: Yes, and it's too bad. By comparison, on the tactics and training side, TRADOC was the final authority. So, there was no layer between me and the final approval. For hardware, the layer was there and really more than one layer, because the Army Staff had no final authority, you know. You wind up on hardware, after you get it through TRADOC - get

them to support you, then you've got to get the Army Staff to support you, and perhaps, DARCOM would disagree, so they have to be brought in. Then you go through Defense, OMB, and the Congress. It's just - that's why it's so darn frustrating.

COL CASS: I've got you a little off the subject. One other observation that I've made and I'd like to get your impression on, and that is - I could never understand, really, why the artillery school, why the engineer school or the Army school were really the users. It seems to me that the 101st Division, that 82nd Division, that 5th Mech Division was really the user and I've never - nobody has ever convinced me that that commander's desires and wants out there were submitted in a timely fashion through the proponent school so that he was represented.

LTG OTT: Well, let me address that this way. General DePuy was keenly aware of what you're saying and did everything he knew how to keep TRADOC close to Forces Command, European Command, and particularly with the Germans and other NATO allies with the idea that we can't go off with a US only concept that won't work in a NATO battlefield. So, all of that was kept in mind but the problem is - the man at the 82nd Airborne and the 3rd Infantry Division in Wurzburg is always thinking of today and maybe day after tomorrow. He is not in a position to look at the 10 to 15 year-out development that he will possibly use because it will never come on his watch. Now it's a good idea to go see these people, and we did, and talked to them about some of the

concepts, particularly, doctrinal concepts that we were fooling with, but when you get to hardware - they just aren't looking at the future. And, the schools have to look at the future.

COL CASS: Yes, that's a subtle point that I kind of overlooked - the unit commander, whether it be division, battalion or whatever, is concerned with being ready to fight today and tomorrow. Your charter as a school commandant and commander is to prepare people, doctrines, hardware for not only now but out in the future. . . .

LTG OTT: For now and the future. . . .

COL CASS: I guess that is the subtle difference that I kind of overlooked.

LTG OTT: So, what your answer to that, of course, is to keep yourself staffed at Fort Sill with people who have had recent field experience - after all an artilleryman is an artilleryman. There's no difference between a colonel of artillery stationed at Fort Sill and one that has the 1st Armored Division artillery in Nuremberg, Germany.

COL CASS: You stated - you've already mentioned - that your priority hardware development down at Sill - in your estimation as you arrived there - was the TPQ-37, artillery locating radar for counter-battery utilization. How about in the ammunition, in the gun, the missile area - what did you consider as being the most important thing that you could push for in

the three years you knew you'd be at Fort Sill?

LTG OTT: Well, in the case of the gun, really not a whole lot. It was open to us. We were told, almost from the day I got there, that before we could make any significant changes in our guns we would have to determine whether or not the principle of soft recoil could be applied to separate loading ammunition, and we weren't able to do that in my watch. So, the only other things we were really struggling with with the gun was to get a little more range out of it, and most of that came from the ammunition rather than changes in the gun itself. Although, the M-109A1 with a long tube - the XM-198 with its long tube and the M110AZ with its longer tube - our three basic weapons - did give us significant range improvements. But, things like burst-rate of fire which we would like to have was still sort of concept while I was there. We could ask for a gun that had a burst-rate of fire and we'd always get slapped with - do you want it to have soft recoil and separate loading ammunition? We didn't know, and getting away from separate loading ammunition was just a study. So, it was a long way off. So, you might say the cannons themselves were the hardest area for us to get a breakthrough in development. Ammunition - we were looking for, of course, more effective munitions. I am a believer in guided munitions of many different sorts, pleased to see you going through a guided munition technology with Hellfire. I like the SADARM concept, the Copperhead concept, the illumination by an RPV for Copperhead, or for whatever, all ideas that will give us precision capability and artillery. I

want munitions that will give us a greater lethality, by being more precise or by being able to attack targets that we've never had much effect on - armor in particular. And, this is where the scatterable mine, the sub-munitions for GSRs, terminal guidance for LANCE, all put hard targets into our realm of possibilities. So, munition-wise, terminal guidance is very important to us. Fire control - I was looking at TACFIRE and the BCS with its capability to permit the guns to go into terrain configuration. And, then in the next generation I think we will get away from battery positions entirely. A battery position is too big a target. We must manage our guns without putting them in a targetable formation on our side. And, our rockets - you really need a TACFIRE system to manage the enormous firepower that comes from a rocket launcher. They're capable of servicing a tremendous number of targets in a short period of time. Now, they use a lot of ammunition to do it. Nothing is free, but in a real surge battle that's a capability that's just a quantum jump over anything we now have, and it's survivable because of their scoot ability but best managed by TACFIRE; important to have for that. In the target acquisition area, I think there's more because TACFIRE and BCS will do most of your fire control with major improvements over the way that's done now. We've talked about ammo, more lethal weapons, but target acquisition is still the fascinating subject. I had recently, for a company I worked for, made a list of a full spectrum of possible targets for the artillery to attack, and of the signatures these targets give and then looked at the technologies that would help us find those signatures. Some

of these technologies we'd tried before and dropped. For example, when General Sammet was in DARCOM, they looked at the seismic disturbances that are created by artillery firing and tried to put seismic sensors that would pick up the earth shakes and tell you where the guns were. Of course, there's sound. Sound detection can be done not only by a sound base but by the artillery fired microphone which I think has got a great possibility because such a base doesn't saturate as easily as a linear sound base does. Heat is, I guess, the most exciting possibility. Almost everything we do in the field in the military has some kind of a heat signature, even from the temperature difference between a piece of metal and the ground around it. It's always there, just ambient differences. So, acquisition devices that can seek out heat sources, heat differences, determine whether they're targets or not and they're just a fantastically big area and we were looking at that in my time but we hadn't gotten very far down the line. We wanted a heat seeker in the Copperhead, we wanted a heat seeking capability in the RPV. . .

COL CASS: Are you talking about a. . . .

LTG OTT: Sensor. . . ?

COL CASS: . . .yes, but - harrassment type RPV then?

LTG OTT: No, I'm looking for an RPV with a sensor that will tell me that there's a target down there. . . .

COL CASS: Okay, just. . .

LTG OTT: . . .and it's looking at - with heat. . .

COL CASS: . . .I see. . . .

LTG OTT: You know, radar is a sensing device. A heat system - infrared sensing device - the millimeter wave sensing device you're familiar with that's in some of our technologies. All of these fields are things I believe we need to keep exploring because our objective is very simple - find ways of finding suitable targets.

COL CASS: I couldn't agree more with all you said. One thing that's hardly been mentioned here is still the age-old problem of communication - timely communication. When you brought out a minute ago the fact that you think in the future we'll even do away with battery positions - you'll be down to one or two guns, maybe, just to eliminate the possibility of wiping out the entire unit, that's even going to complicate more the communication problem.

LTG OTT: That's right.

COL CASS: Would you care to talk about that?

LTG OTT: Well, you know, it's interesting, most of the studies I've seen on

modernizing the battlefield, and most of what we did at Sill, assumed that the communicators would solve the communication problem because it was never a Fort Sill responsibility. We were probably assuming something that isn't going to happen, at least not as smoothly as we would like for it to happen. We will have saturations in - we will have deceptive imitations coming in that will try and fool TACFIRE, or something like that, because that possibility is always with us. Not a whole lot has been done to improve the transmission and reception of FM radio traffic, and that's the backbone down in the tactical level of our whole operational system - maneuver and fire support. We're doing a lot now, as you know, with satellites, and so on, but that's for the higher level guys. That's not down there in the battery, and the FO, and the tank battalion. They're still relying on FM radios and hopefully, we'll get better.

COL CASS: Well, that's the basic problem and early on today you talked about the difference - and you knew that at the time you were at Fort Sill that the next war was going to be entirely different than the type of war we fought in Vietnam. It's going to be an armor type war - fast moving, scoot and shoot - there's going to be a series of engagements. . . .

LTG OTT: Now, I don't know that that's going to be the next kind of war, but I know that's the kind of war we've got to get ready for. . .

COL CASS: . . .to prepare for. . .

LTG OTT: . . .yes. . .

COL CASS: . . .but the thing is rapid and timely communication will be even more important. Any time I talk to a gentleman who's not an artilleryman, particularly, about - you know, the sequence of fire commands, he says in the heat of battle, how are you even going to transmit from the time the observer sees the target - how are you ever going to transmit in a timely fashion that mission down to the gun? For example, the Copperhead round must get under way and get out on target in time to hit a moving tank before it's completely out of your scope.

LTG OTT: Well - visualize a forward observer vehicle and the observer points a telescope that's got a laser range finder on it. He presses a button - the vehicle knows where it is from land navigation, and it knows the azimuth of that telescope - the range is read to it and it transmits back digitally that this is a moving target at this location, and the system has got to be all wired together and the next thing you know you've got a round in the air. But, I think that to be realistic, you will seldom shoot at the first tank that breaks the skyline. That will alert your system to be ready for somebody else. As you know, even with TOW there's a time delay from when you see a target until you can hit it with a weapon. Now, your smarter weapons like the one you'll be working with - Hellfire - will have a better chance, because you don't have to keep the target in sight.

COL CASS: You bring up Hellfire and I don't know that at the time you were at Fort Sill if - we were discussing it at a time - the possible utilization of a ground. . . .

LTG OTT: Ground launch. . . .

COL CASS: Ground launched Hellfire.

LTG OTT: Yes, we were.

COL CASS: Well, what are your thoughts on that as an artillery weapon? Now, you know, Hellfire - heliborne - will not be artillery. It'll be primarily anti-armor but it will not be under the DIVARTY commander but in a ground launch role - I would think that might be artillery.

LTG OTT: I would too. I very much think so. It sort of fits in the same pattern as something like Copperhead.

COL CASS: Yes, sir.

LTG OTT: I guess the artilleryman's dream is to take an artillery round and sort of talk to it and say, "I'm going to shoot you. Now, you go out there and find a target and destroy it." So, you point it towards the enemy's general area and that projectile will find the target and destroy it. Well, that's Hellfire. You, of course, point it where

you have reason to believe there's armor exposed, but you don't have to see that armor. You just have to hit the "basket." The seeker finds the target, the guidance system brings it in - same thing with some of our other weapons. I think that's an artillery role - indirect fire attack of a target, whether it's moving or not is not the point. It's the indirect fire which calls for the control system that the artillery has.

COL CASS: I really - of course, I'm a bit biased, but I think it's a fascinating, a possible use, of a system we're going to have in the field, anyway, and if we can devise other ways of utilizing it, such as from a very mobile ground platform, I think it just behooves us to seek that way.

LTG OTT: Yes, there's probably a good chance - have your seeker shut off until it starts its downward leg, or something like that.

COL CASS: Now, did you ever give any thought though while commander at Fort Sill as to what type units you would be willing to trade off to get something like a ground Hellfire? Because, force structure is a continuing problem.

LTG OTT: Yes, and force structure is going to be a problem for the general support rockets.

COL CASS: Yes.

LTG OTT: No, I didn't because it wasn't that close to fruition. I think we all recognize that it would be a question and I think we were sort of day-dreaming that if the artillery were to get a ground Hellfire it would be an add-on, and that everything the artillery wants are "add-on." That's all armor wants, that's all infantry wants. Nobody wants to give up in order to achieve. Realistically, you've got to give up something so I think you'd have to find which systems within your current field artillery structure Hellfire can replace, and do a better job. And those are the ones you've got to give up as trade offs.

COL CASS: I think we'll wind up this section in a moment. I've got one other question that I know must have given you concern while you were at Fort Sill, and probably since then. It appears to me that we only have one or two people capable of building artillery weapons in the United States. Now, in time of general mobilization, do you have a concern that we don't have anybody around - and this goes for tank builders, too? You know, we have two people that could build tanks. How quick could we get somebody prepared to start building artillery pieces if we started losing them at a rapid rate in the event of war?

LTG OTT: It would take many months. It's very difficult to visualize a war of the type that it would require a lot of new pieces lasting that long, and I know you will shoot yourself in the foot with that kind of statement, but I think the answer is to have stockpiled in your reserve units, in your arsenals, and what not, a sufficient number to

handle the months it will take before you're in production.

COL CASS: Yes, that's something I know bothers an awful lot of people that we just - the next war won't last long enough for us to adequately mobilize like we did in the Second World War.

LTG OTT: Well, you know, when we say that then we get into the arguments of then why the heck do you want a reserve structure, and so on, and the answer is that we don't know what the next war is going to be like. I think the first phases of it are going to be very violent and if we lose that we may have lost the whole shooting match. But, if we don't lose that we might have gained for ourselves the kind of time you're talking about to get our production going on to other systems. But, right now there's only one place in America that can make artillery cannon tubes - Watervliet Arsenal in New York - one place. And, incidentally, they're now making the Navy's cannon tubes. The Navy has closed out their Dahlgren production, as I understand.

END OF TAPE 2 - SIDE 2

SECTION II

23 January 1981

MEMORANDUM FOR THE RECORD

SUBJECT: Access Agreement - LTG David E. Ott

Access to SECTION II of the Oral History transcripts of Lieutenant General David E. Ott will be granted ONLY to those who first secure permission of THE DIRECTOR, US ARMY MILITARY HISTORY INSTITUTE or LIEUTENANT GENERAL DAVID E. OTT.



CHARLES R. SHRADER
LTC, TC
Chief, Oral History Branch