

Transcription of Interview: Colonel Kenneth R. Reiff, HQ AFCC DCS/Information Systems with Dr. Thomas R. Young and Dr. Larry R. Morrison, AFCC History Office

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Topic: Merger of communications and data automation

Dr. Young (TY): Basically what we're looking for is information driving the merger. I know when I got here four years ago the communicators and the data automation (ADP) people wouldn't even talk to each other. I assume that's probably still the case in some instances. What we're looking for is material we probably won't find in documents.

Col Reiff (KR): There's a history associated with trying to bring the data automators and the communicators together. I guess it went through several iterations at the Air Staff where we had command and control, communications, and, separately, data automation (ACD). When General Edge was there (*Major General Robert L. Edge, assistant chief of staff, communications and computer resources, Headquarters U.S. Air Force, 1975*), they brought the two together at the top and created KR. Shortly thereafter they disbanded KR. Command and Control, and Communications went back under the Deputy Chief of Staff, Operations, Plans and Readiness (XO) and data automation went back under the ACD, the Comptroller area. The problem, as I look back and try to judge from history as to perhaps what happened, is they only did it at the top. There was no plan to do it throughout the Air Force, all the way down, to pull it all together. In other words, doing it at the top and stopping there just wouldn't allow it. The difference that I see today is that we're shaking the very foundations of the Air Force from top to bottom. We're doing the doctrine in the 700 series regulations; we're doing the enlisted career fields by merging the 291s, the 295s, and the 511s. We're doing the officers by merging the disciplines of the 51 officer, the data automation officer, and the communications-electronics officer, the 30. We're doing it in the civilian side as well, by putting the civilian disciplines of the communications specialties together with data automation specialties. So what you have is a full spectrum of changes that are coming about from the top all the way down, which is going to permeate every level of the Air Force. Now the reason why are we doing this?

I think you have to go back and start with the basic mission of the Air Force which is to fly and fight and put weapons on targets. You can use it in that context, or you can use it in the context of deterrence. But the key thing is that the environment where you used to have a very small quantity of computers within the Air Force has disappeared.

What we have is a massive proliferation of the need to transfer information. Whether it is for command and control, logistics, or normal, day-to-day Air Force kinds of business, information transfer has gone beyond the typical voice and data lines that we traditionally used. As the disciplines of data automation and communications became more cohesive, the folks had to work together. You began to get an understanding that one cannot do without the other. The data automator needs the land lines capability, the communicator needs the computer capability that data automation brings to the Air Force. The communications systems of today are computer-driven. Whether we're talking about AUTODIN, or AFAMPEs, or about the future, interservice agency AMPEs, or the tactical arena when we bring in the new high tech switching systems, all are either driven by or embedded in computers. The summary of what I'm saying is that technology has driven the two together, and the Air Force, the corporate Air Force, has stepped up to doing that.

TY: I have a question about the technology which does and does not relate in a way to SI, the question I asked Col Bell before he left (*Col Edward Bell III, deputy commander for Data Automation at AFCC Hq, 1980*). Can the Air Force, can any federal agency, keep up with the technology given the way we have to buy things?

KR: Well, that has been debated in many different circles. The answer is not a simplistic one. The way we're doing business today, my answer is no. That's one of the things, I think, that's driving us into the new 700 series regulations where we're looking at the long, laborious process of AFM 100-18, we're looking at the AFM 300 series, the AFM 300-2 series regulations, to try to acquire systems much more quickly.

The second objective of that is to try to get a common language; to get rid of the communications language in our programming documents and the data automation language in their documents with one set of regulations that allows us to do that. Naturally, on any high priced systems, whether it's Phase IV, a \$1.3 billion capital replacement program, or SCOPE EXCHANGE/SCOPE DIAL telephone systems on the other side, it's going to be driven by the availability of dollars. It takes a long time to get dollars to do a particular task. Once that decision is made, by the time you have the dollars and you've got the programs ready to go, the technology has stepped well beyond that. But that's the dichotomy. There are two kinds of folks. There are those who say "Let's not buy this weapon system; let's not field this weapon system" or "let's not buy this computer system," or "let's not buy anything because sometime something better is going to come along." The consequence of that is that your fielded systems get older and older and more difficult to maintain. At some point you have to make a decision to recognize the technological input, but you have to stop and buy capability or you never will replace it. And that's the dichotomy you run into, when do you take technology at a certain point and stop and say "I'm going to buy"? Or do you let technology continue on and on to develop capability and never buy? And even though our system is somewhat lengthy, I think we need to stop and make decisions periodically to buy. We've done that in Phase IV. We know that the 1050-2s and the Burroughs 3500 systems needed to be replaced. They were no longer logistically supportable, they no longer met the demands of the users, and a decision had to be made to stop and buy. At the same time we made that decision to buy, we're looking at newer generation equipment that industry has, and we have other programs on the books to bring that new equipment onboard in the future. The life cycle of a requirement in either data automation or communications business is long, but I don't think it's any different in our business than it is for weapons systems. I can give you an analogy of B-52s sitting out there that are old ... and they've been old for 25 years. And the decision has been made that we're going to field some B-1s. There are some folks who say we ought not to do that. Missile systems are getting old, folks are saying we ought not to replace those, but I'm here to say that you can always make that decision to never buy. But at some point you're never going to modernize your force structure or modernize your weapons systems, and that affects the ability of the Air Force to do its mission. I think that as we deliberate in the POM process and in the forums within the Air Staff Board structure, and even our own structure here in Comm Command, we have to make those decisions that will give us maximum payoff when we stop and buy.

You're never going to catch technology. My future technologists down in SIT are talking about VISIC technology, very high speed integrated circuit capability and what that will do, and they're looking at ways to take advantage of that technology.

We can talk about local area networks. It's a technology that's here today, but we still need some Research and Development in network interface units. We can talk about fiber optics and fielding those systems, which the command is about to do. But all of those take dollars and manpower resources. Those decisions have to be good payoff decisions for the Air Force to take maximum advantage of the technology, to lower the price, to improve the maintenance, and, most importantly from an Air Force perspective, to save manpower. If you can't save manpower, you're not going to be able to justify taking advantage of any technology, unless it's going to show a quantum capability of the kind I'm talking about. It's that simple as I see it.

TY: Will the integration of comm and ADP help the process?

KR: The answer to that question is yes, and you have to recognize that you're talking to a flaming advocate. So there's bias as to what I'm going to say. From a systems perspective, when

you think about independent disciplines going their separate ways, you don't get the system payoffs that you get when you have people thinking in processes of transferring information back and forth ... and that is a thought process. When you have people thinking in that mode, there are certain artificial boundaries and restrictions to doing that. I think the merger of the disciplines, the programming of equipment, is all going to get us to where we want to go a lot faster than if we remain separate. And, really, it is hard to draw a distinction as to where one stops and the other starts. That's the hard part; you can't just do it in isolation any longer. We've got an analysis program called BIA, base information analysis, conducted by the Air Force Teleprocessing Center, and that effort alone is a report back to Congress to tell what our air base of the future looks like and how information is going to flow around those air bases. It's an innovative think piece, and it needs to be done. The command is heading into the arena of local area networks. The fact that General Stansberry (*Lt Gen James W. Stansberry, commander of the Electronic Systems Division*) and General McCarthy (*Maj Gen Robert F McCarthy, AFCC commander, 1981-84*) chartered the establishment of the AFLANSPO at ESD was recognition that local area networks are already being proliferated in many of the systems being fielded, and nobody had control of those systems. Nobody had come up with engineering standards. That's one of the basic reasons why those two gentlemen thought they needed to get together. I'd make a comparison, going back to your previous question on technology. My assessment of the local area network business is that it was going about the speed of a Concorde and the corporate Air Force was trying to catch up to it with a stagecoach. I think what's been done now is that we're still trying to catch a Concorde, but maybe we're on a train. Hopefully, we're going to get on an airplane soon so we can speed the process to field some of the systems. But that's an example where technology has moved so fast and all of the users want the technology and we didn't step up to it. We didn't have the far thinking, futuristic kind of thought processes in local area networks, and consequently, we're trying to catch up. So, my answer to your question is very simple, "Yes," and I think we'll all be better for it in terms of the future.

TY: Drawing on that, the technology in one direction for the merger, can this command or can any single organization within the Air Force manage all of the things that are going to be coming down the road?

KR: That's a loaded question, and I'll see if I can treat it that way. We have to talk about disciplines. First of all, there are standard systems. Those are the things that all major air commands use, like the Phase IV, telephone exchanges, comm centers, and AUTODIN. Those are things Comm Command can manage. We've proved it. We're very successful with our Phase IV effort. In terms of the acquisition problems, we have some problems in the activation of the Phase IV system with the lead base at Langley, but I'm sure those are going to be resolved. In the data automation business, I think our track record is super on the standard information systems, comm types of equipment. Then you have a separate part of that question which is the rest of the corporate Air Force and we have to remember Air Force Systems Command. Comm Command does not want to get into the research and development business, and therefore we have a problem about definitions and common use of terms. One of the terms used is "developmental software." We sometimes throw that term around to indicate that Comm Command is involved in research and development of software. That isn't true. What we're talking about when we say developmental software is the capability to take an existing system and enhance it. Or to take an existing database off of one system and transfer it to a newer system, and there may need to be some software that's written to do that. We're talking standard systems. Comm Command does not want to get into research and development of data systems or comm systems. It's not our job. Systems Command, on the other hand, has the responsibility, as do other agencies like the National Security Agency, Electronic Systems Command, for example. What we're talking about is the future system in research and development. The VISIC technology is a good example of that. Comm Command is not in the business of going out and acquiring and putting into the field and fielding systems with VISIC in it. Not our job. That's a job for Systems Command and the operational community. The next part of that question deals with embedded computer systems,

which you would consider to be a part of a weapons system. Comm Command does not want to get involved with that. An example is avionics packages that are computer driven. And where you have, even to a certain extent, information systems that support command and control, specialized command and control, which is a part of a weapons system such as Peacekeeper, it's not our bag to do that. The significant issue right now is the division of responsibility on software. That's another ballgame. Comm Command has shown in the past its capability to step up, particularly with SAC, to take some of their weapon systems. I should say their command and control systems, and maintain the software for them. There's a question whether or not that should be done by Comm Command or maybe, perhaps, a question about whether or not it should be done by AFLC as the life cycle manager. That's an issue yet to be resolved by the corporate Air Force. I see in the future, the Systems Command role will not diminish, the Comm Command role will not diminish, and I believe the Log Command role will stay the same. There's going to be folks who will articulate the need to get into other people's areas and turf and how to do that job better. I think the Air Force can manage it as long as we keep the definitions of what it is we're doing and by the MAJCOM charged with doing it.

Dr. Larry R. Morrison (CLM), AFCC History Office: At this point, from your perspective, who do you see as driving this merger? Is it this command, or is it the Air Staff?

KR: The Chief of Staff of the Air Force made a decision to form an Assistant Chief of Staff for Information Systems at the Air Staff. The intent and the content that went into the briefing that said why you should do this and where we're going to take it was fully briefed to the Air Force structure, all the way up, and the decision was made. There's a Program Action Directive that was written, Program Action Directive 84-1, which has milestones in it that require the major air commands and AFCC, in a dual-hatted mode, to step up and implement information systems at the major air commands, at the special operating agencies, and direct reporting units. That plan was coordinated at the corporate Air Staff level, and Comm Command, of course, under the dual-hat concept, is a leader with all the major air commands in doing that. I see no difference there than the way we're doing business now being dual-hatted in the Comm business, except that the role will be significantly expanded for our communicators and data automators. We have to be very careful that people don't perceive what it is we're doing as a Comm Command takeover. That's not the intent. The intent is to make maximum utilization of the technical expertise that Comm Command brings to that arena. We've done business in data automation for a long time. A lot of folks don't know that, but we have. We provide a lot of day-to-day support. So if you take the expertise of this command, both in the communications disciplines and data automation disciplines, we have a lot to bring to the major air commands. We shouldn't feel uncomfortable with the dual-hat role. We've been doing that in the comm business for a long time, and I think it's just a continuation of the mission of this command as we merge the two technologies. The driver of what it is we're doing is the Air Staff, starting with the Chief of Staff. Comm Command is stepping up to its role as a result of being tasked by the Air Force SI to do certain things in the integration of the business, and that's what we're about now. We reached the most significant milestone on the 1st of July, 1984, when we created information systems staff at Alaskan Air Command, PACAF, TAC, and SAC. We're planning to continue down that road with the next set of major air commands. I think, in September, we're supposed to do Space Command, Military Airlift Command, AFOTEC, Air Training Command, and USAFE. Now USAFE is supposed to have been done. The PPlan was supposed to have been submitted for USAFE in September for approval to implement 1 January 1985. General Minters (*General Billy M. Minter, commander in chief, U.S. Air Forces in Europe, and commander, Allied Air Forces Central Europe*) made a decision that he doesn't want to wait any longer so he has accelerated the date back to October. So you can see the momentum is growing to get this done. We're talking and articulating with many of the other special operating agencies and major air commands who want to come to us now and talk about their dates and what it is we're doing ... as if they want to speed the process. We'd like nothing better than to do that, but we have some constraints, too. We have a limited staff that's trying to orchestrate the whole Air Force PPlanning process, and

each only has one PPlan to implement. It's making a real drain on our resources and our SIP shop to march to that drum. The folks have been very capable down there and have done a super job. I think as we visit the major air commands, the credibility of Comm Command, and particularly the expertise that we bring to those major air commands, only more cements this as being the proper decision and the thing we should be doing.

LM: Has there been much opposition to this in the other commands? How has this whole process affected the view of this command from the other commands?

KR: I can't speak for the other commands, only in a nebulous way. I think, initially, there was some resistance, and I'd have to say as the first DCS/SI in this Headquarters, there was some resistance here, initially. There was some concern as a communicator, on my part, about the data automator and whether or not we could successfully integrate them at this headquarters. I think those same natural concerns evolved in the major air commands. After all, you don't shake a system as drastically as we're shaking it without concerns as to whether this is the right and logical step. From a personal experience point of view, I can tell you that when we did merge at this headquarters, I gained a tremendous respect for what the data automators bring to this business. My initial thought processes were one of concern. After about three or four months into the business and dealing with the data automation folks in this command, all of that went away. I recognized that what you have on the other side is a group of professionals who have a super attitude. They have a tremendously high ability in terms of their technical capability. So what you get is the best of both. I think also one of the key points that you're going to get is the quality of the senior leadership in the command is going to improve because of the competitive process that's going to be part of it. We had, I think, roughly 127 opportunities command-wide to command, and we had Air Traffic Controllers in command positions and Communications Officers in command positions. You put the data automator in there and now the competition for command significantly increases. We as a command have decided we're going to give data automators an equal opportunity to command our units based on their ability and proven leadership. Consequently, the competition's going to get tougher. When it gets tougher, the better the overall command is going to be, because the right folks with the proper credentials are going to be commanding our units. There's some concern on the part of the air traffic control community about how they are to get to command and some of their spaces being taken away. The answer is that we're going into the information systems business, and we need to bring those folks into it. I think they recognize that now, and it's going to get tougher and tougher to get commanders' jobs in this command. Only the very select folks who have prepared themselves for leadership positions are going to get them, with a high probability that they're going to succeed. We already have two data automator/communications commanders. We have one at Peterson Field, and we have one at Buckley, already commanding AFCC units. There are more vice commanders of our groups on the books. Roughly, we're talking about 30 units AFCC wide as initially establishing positions for data automators to either command or be vice commanders. Getting back to your question, I see it as healthy. I think that we have done the right thing; we're moving in the right direction. I think it was inevitable, and I'm glad we stepped up to the challenges. I was personally proud to be part of it.

LM: What are some of the problems that have been associated with this that you think we have overcome now?

KR: First of all, at the senior major air command level, the 4-star level, I think we've overcome the part that says "We're not going to do it." Now, there are going to be some major air commands that may be a little harder to bring on-line than others. In my mind, right now, that happens to be Air Force Systems Command and Air Force Logistics Command. Eventually, I would view those folks as joining the entire Air Force effort. It's going to be a slow and meticulous process, and I think we have to articulate it very well to convince those 4-stars that they need to come on-line. I think the plan to merge the enlisted, officer, and civilian career fields is moving. It seemed stagnated for a while, as if we weren't going to kick it off and really do that.

I might also add that we've started what we call a professional military information systems officer course under the auspices of the LDMC folks at Maxwell to take folks in senior data automation positions and run them through the school and try to give them the communications background necessary to be successful. We're doing the same thing with the communicators by running them through the same school. We've achieved some success in that arena. The pilot classes are scheduled for September with the first formal class going into effect in October. The training programs are beginning to take shape and are being molded. The restructuring of the career fields is beginning to happen, and I see that as a positive step that we've overcome some initial reluctance. There's always a natural concern for change because one of the things that you're dealing in is a security issue. I don't mean that in terms of physical security, but in terms of a security issue of a particular person and his or her job. Naturally, there's going to be some problems in the beginning. I think those are going to be overcome. It's not going to be easy, but I think the dedication is there on the part of all of the folks involved with this. It's a logical blend, and it's going to work because it was inevitable.

You asked the question about roadblocks, and what do I see as being roadblocks. I'm going to be honest with you, I don't see any. Some things may take some time to get accomplished; some are going to take more time than others.

For example, we are rewriting the entire 100 series of regulations, and we are rewriting the 300 series regulations. That's going to take some time. We'll be in a situation where it'll be confusing, at first, as to how we're going to do business with the merged disciplines. However, that'll sort itself out with time once we get the documents and the manuscripts in, have a chance to review them, and comment on them. That process is not a short-term process. It's going to take some fine tuning--the merger of the disciplines, of the various enlisted and officer skills, and civilian skills. It's going to take some time, but I don't see any roadblocks to success. It's a question of overcoming it, planning for it. I think we have a good plan, and we may take a couple of detours along the way as we fine-tune it. There may need to be some organizational changes to fine-tune, perhaps, what we felt we could do originally and now does not seem like the right thing to do. We may have to fine-tune some organizations, but I don't see any roadblocks. I see a group of people dedicated to bringing this about everywhere I go. I'm talking about the Air Staff; when I visited and talked to the folks in the hallway, where I'm going down to the Air Force Teleprocessing Center, where I'm going down to Keesler to speak before either the telecommunications systems staff officer course or the computer course. There's, naturally, a concern. Interesting sidelight, there's concern from the data automators about when they're going to get their first remote tour on a mountaintop. It's a natural concern. There are some of those who are concerned about the remote tours, and there are some who are already volunteering. We just had a young lad volunteer to take command of the squadron at Shemya, and he is a data automator. He wants to get into the command business. That was the only slot open, and he said, "I'll take it." So, you see it building.

I have another personal comment. I believe the data automators, by and large, were somewhat stymied in their careers as it relates to command opportunities. That is not to say that they could not achieve senior positions or some command. However, I think this opens opportunities and horizons for them to get more into the commander business, to get into the key executive positions, both in AFCC and external to AFCC.

To me, it's an exciting time to be a young officer—either a communicator, a data automator, or an air traffic controller, in our command and external to our command.

LM: What effects do you think this is going to have on a command; such as morale, for example? You're talking about the opportunities, but you're also saying that it's going to be harder to get to be a commander. What about URI and things of this nature? How's all of this going to affect the command?

KR: Morale is a difficult thing to assess. Having commanded several units in the field, I never could tell if the morale was good or bad. I guess my gut instincts tell me that when the job gets tougher, and when there's a challenge for something to be done, morale gets better. I think that you have a problem with morale when people don't see a sense of purpose, when they don't see their overall position in terms of getting the Air Force mission done. When we don't articulate the mission to them I think morale goes down. There is a chance that the morale of our air traffic controllers can suffer if we don't do this right and make sure that they have an opportunity to get into the information systems business quickly, because they may be left out in the cold. That's something that logically concerns them.

Individual morale is hard to judge. In one case, you have folks willing to step up to the challenge and their morale is good. You have other folks sitting very comfortably in what they're doing now and see the change as threatening, and their morale is bad. My view of that is there are going to be some discriminators here. That's a function of leadership within Comm Command and corporate leadership in the Air Force, to step up to that task. I sometimes get discouraged that our youngsters out there in the field think that they are going to get everything handed to them on a silver spoon. There has to be recognition on their part that this is the way the Air Force is going, and they are going to have to make a decision to work like hell. Get on the team or get off. We're not going to be able to save each one of these individuals. That's a personal decision that each officer, enlisted, and civilian is going to have to make. You're right, it could adversely affect the morale of those that don't want to get on the team and move with the team. Those who do, their morale is going to be fine, and again, morale is a double-edged sword. I find that, based on 23 years' experience, that when the job gets tougher--and I'm talking about young enlisted folks and young officers, the ones who are truly the kind we want to keep in the Air Force—they don't have morale problems. They step up to the task at hand and get the job done. There are some natural concerns that they may have about not having all of the information they need at any given point in time. We try the best we can to get it out. Colonel Chaplin, our IG, on some of his trips out to the field, comes back with the same kind of things that he feeds to me and we've talked about. The biggest question out there is, "What's going to happen to me?" on the part of our enlisted people. We've got to do a better job of getting that information out so that they're informed.

LM: How's that going to affect the URI and things of that nature?

KR: We're watching it very carefully. I think it will ease the burden of the URI because we have more folks to work with. There are some skills that have URI problems, for example, with three or four XOs. I don't think that we are going to solve it. 307s, the tech controllers, we are not going to solve that with this kind of thing, near term. As far as the 291s, the 295s and the 51s, that's part of our planning process to take a look at the URIs. But, there's an issue even greater than the URI. That's how to fix the 291 problem we've been dealing with in the command for a long time. We have plans on the books now to go about doing that. Number one, when we merge the career fields, we're going to try to do most of that with OJT, until we get the school house restructured. We'll provide more people to make up some of the remaining shortfalls that we have in the command. We need to evolve into one discipline, and we are working very hard to do that with the enlisted structure of the AFSCs, to bring together data automation operations and data automation programmer and communications operator and communications programmer. That's the structure of the new career field which we've laid out. We're still fussing a little bit with the Air Staff about the need for a manual operator, for example, to operate some of the DSTEs that still exist in the Air Force until we convert to SRTs in our comm centers. In particular, the National Guard and Reserves will have the DSTEs around for a long time. One of the things I think we are going to be able to solve is that in the past the 291s have never been a category A skill. We worked very hard with the Air Staff to put the money in the POM process to make the new career field a category A skill. The outgrowth of that initiative is that we are going to have three-levels in our units rather than "O" levels. Secondly, the security issue comes up--the time it takes to get a security clearance. By putting folks through the school house, we can start working the security problem a lot harder.

When they get on site, they at least should have the security information process to the point where the commander may be able to grant them an interim clearance and put them to work right away, rather than in some cases just operating switchboards.

In many cases the switchboard may not be there, we're looking at contact switchboards sitting in orderly rooms. I think URI will get better. Another issue is that the 291 has been a feeder AFSC. By that I mean the CPG comes in with a broad base with the intent that when you get to staff sergeant, eight-year point, that you will Palace Bounce those people out. We have a situation now where we have qualified staff sergeant 291s that are five-levels, and they've passed their seven-level exams. We're training them out of the comm center business and letting them go off and be cooks, bakers, security policemen, and other things. We need to get rid of that feeder AFSC. By doing that, we'll keep a structure that starts with the CPG as a pyramid. Right now, we've got an hourglass. You will find that we are cross training out our most qualified 291s, that staff sergeant, eight-year point. What we're bringing back into the career field to run our comm centers are tech sergeants that come from security police, and so on. What we're getting is 010s coming back to us for OJT to run our comm centers, and hopefully, not to run our data automation business. That's something we're trying to solve with the merger. I think that's going to be done, and we'll have a better force as a result. It's going to be a little bit easier to manage.

TY: Let's bring the whole process back to the Headquarters with office automation, which is maybe a microcosm of the whole thing. For about three years the whole effort just sort of lumbered along. Last November we had a meeting requesting support. Some people would say it was off to the races. Did we learn any lessons out of what we are doing? We are the lead command I suppose, maybe for the entire DOD or the federal government, in taking on an organization this size. What would you do differently? What would you do the same?

KR: As I told you before, I'm a flaming advocate. You have to understand that. From my perspective as the DCS, and also having worked the POM the year before I became the DCS, a clear message came across. The clearest message in the world is that the Air Force is 56,000 manpower spaces short. That's the clearest of messages. The second part of that message was that the major air commands are going to take headquarters ceiling reductions, whether it is in civilians, enlisted, or officers. We're going to take those reductions.

If you look now at the next POM year, the time at which I served as the assistant DCS and Chairman of the AFCC Secretariat, it's a very clear picture that we are not going to field our weapons systems such as the B1, Peacekeeper, GLCMs, and all those things without finding some kind of offset to do that. I'm convinced, and was convinced at that time, that the only way this command could keep the same level of productivity with a loss of those manpower spaces here in the Headquarters is to go to automation. There are many things that we have found as a result of studying the information systems business here in Headquarters. Most importantly, what we found out is the enormous amount of time it takes an action officer to do a mundane task. We found out what the paperwork processing times were for an action officer to write a particular letter. It goes to the division chief for review ... doesn't like it. So it goes back for retyping. He gets it out of the division, gets it to the director and the director doesn't like it. So it goes back to the division chief. The division chief goes back to the AO, and it is rewritten one more time. Then it gets to the DCS level, or either cross staff coordination of the papers, and it's massaged and rewritten several more times. A lot of that is typing time; a lot of that is administrative processing time which holds up productivity because the end product seems to never get there. The key, as I look at it, is that if we lose numbers of people and we maintain the same processes, we're not going to be as productive and we're not going to get as much work done. Automated information systems (office automation) bring the capability to use the desktop computer along with an operational concept that will allow action officers and secretaries to function more productively. For example, once the AO constructs the document on his machine and it goes to the next highest level electronically, if there are any changes there, you're not retyping the entire text. The division secretary can look at the changes the boss wants and type

them on the screen, punch out, and it's there. He goes back on his screen, looks at it, and says, "Now it's okay, I'm ready to send it to the director." We still haven't gotten to paper yet; we're still doing it electronically. Consequently, that process, being done electronically, gets all the way, even up to the DCS, and the DCS wants to make some changes. The changes can be made, and unless there's a drastic surgery in the entire concept that says, "No, I don't want to do it, throw it away," it's going to flow faster. It's going to flow a lot more efficiently, and it's going to get to senior levels faster. The second part of this is how much time it takes an action officer to prepare such things as responses to blue darts, snowflakes, DCS taskings, and those sorts of things where we are providing information and nothing comes of that except to inform somebody of the status of a particular project or effort. With the databases that we are proposing to put together, if I, as the DCS, want information, I don't need to sit down and write a note. I've got the capability to get into the database and call the information up on my screen and get it. I'm not having to write a note, have it suspended, going all the way back down through the system and coming all the way back up. The information should be at my fingertips, assuming we train our folks to keep our databases updated whenever an event occurs.

That is part of the training process to get that done. Consequently, I see a tremendous reduction of paperwork, number one. Number two, the demands for information will be satisfied more easily and much more quickly. A good example of that is the book we put together for the commander when he goes on a trip; those are routinely kept in a log. The information is there, we extract it, somebody types it, and sends it up. This way we can store the information. The commander is going on a trip. All we have to do is feed his trip locations into the system, and the system is going to give us the information about where he's going. We have it printed out for us and ready to put the book together. The time savings on that is fantastic, and that frees the action officers and executives in this Headquarters to do other things. It provides them the time necessary to look innovatively at the task at hand, rather than constantly trying to chase down information to keep other people informed. Naturally, there has to be some controls on that information. One thing that concerns me is the security of that information and who has access to it. I'm not talking about secure, because our system doesn't have any classified information. I guess like our conversation here, right now. You're probably going to take the tapes back and do something with them. You're going to get someone to take it to stenography and reduce it to paper. Then you're going to want me to edit it, but how are you going to get it to me? Are you going to get it to me on a piece of paper or could you give it to me on a VDT screen so I can go through it and make changes? To me, the simplest form is once you capture a keystroke initially, it's in the system. The editing process becomes easier because I'm not reading a piece of paper. I'm not scratching it up, and your secretary is not retyping it. It's on electronic media, and it can be edited from the electronic media. Consequently, it becomes my time as to when I want to look at it and how I want to remark about it, edit it, and give you back the product as a result of this conversation. Now you've got it. Once it's finalized and you want to punch it out, all you do is hit a key, send it to a printer, and you have a hard copy whenever you need it. It's a good example of what we're doing. What we're doing right now is sharing information in its simplest form, a conversation. But you're capturing it on an electronic medium, your tape recorder. So, now you can put it into a system that's going to keep it and archive it so you can get to it and use it.

TY: With this easier flow, will management be able to handle all the information? That's one of the persistent questions the more of this we do. How would you as the DCS even be able to read everything that comes up? What I'm driving at is that we've cut the AO's and the exec's work in one area; won't the exec have to work harder culling out what you need to see? What the doctor needs to see or this kind of thing? Won't you be buried?

KR: I'm buried now.

TY: Will you be buried deeper?

KR: Some controls have to be established. If you look at the amount of paper that I have to read, four to five hours a day, things that are routine in a lot of cases. Where I am authenticating papers and things like that, I would hope that process would go away and free me to read things

that are extremely important in terms of issues in the command. When I've spent four or five hours reading information that's in paper form now, it's not distilled enough for me to grasp it and get it condensed down to the key things I really need to know. There are other things that I read because of the process, the administrative process, that come flowing through, for example, like point papers for the commander's trip that are nothing more than what tells him what's installed in the given areas. If I know the database is correct, and I've got some control to make sure the database gets updated, I shouldn't have to see that. That should be simply some action officer putting the book together for the commander, and the only thing I'm going to see is the final product when it's assembled to make sure it's okay.

I'm not going to go through and read it and check everything. Whereas now, I look at each individual paper as it comes flowing in from the different directors in the DCS. There's always an insatiable demand for information. It starts with the leadership and how the leadership sets the tenor and tone for the command. I've heard General Prather (*Major General Gerald L. Prather, AFCC commander*) remark that he's starved for information about what's going on in his command. I view this process as a means to get that information to him quickly.

In our original demonstration, we showed him the capability to project from and give him a briefing that had never touched human hands except for the person who prepared it electronically. The action officer built the briefing on the database in California and we brought it here through a computer system. We used an electro home device and gave him the briefing in the office next door. It never touched a single hand here. Nobody here manually constructed a graphic or built a chart. We displayed it for him, and gave him the briefing. So, one of the things I am saying is that if he has an insatiable demand for information, and he does, and that's the tenor that he wants to set for his stewardship of the command, we have an obligation to give him that information. We have an obligation to give it to him correctly, accurately, but most importantly, quickly. The processes that we've set up here to go through office automation, I prefer to call it office information, are going to speed the information flow. It's going to improve productivity for the command.

TY: There are those who say we jumped too quickly, and we're being dragged, kicking and screaming into the 21st century, or something. Did we move too quickly or not soon enough?

KR: Let's talk about the constraint and why we did not move soon enough. I talked earlier in this discussion about what the data automator could bring to the communicator. When we formed the DCS and the data automators were brought over, office information systems were previously managed by the DCS/CD. At that time, the XO was the pilot project. When I took a look at the budget, there was no money. We knew what it was we wanted to do, we had some foundation as to what we wanted to do, but there was no money. Consequently, it was languishing. We were going through a very meticulous, slow process that didn't afford us the opportunity to get the equipment or the software necessary to do it. I made an approach to command; I made an approach to counsel. I said that if we're serious about doing this, then we don't need to study it any longer. We had studied the dang thing to death. We were paying contractors good money to come in and tell us stuff we already knew. One of the most significant decisions was our Chief of Staff's decision to kill another study. He said, "Why am I going to spend \$250,000 to have another contractor come in and study it and tell me what I already know." The answer is we learned office information systems from industry, and we've learned from our own XO pilot that it is the right thing to do. Consequently, I made a bid for the amount of money I needed to bring office information systems on-line in this Headquarters. At the same time, we were very fortunate to get the small computer Z100 contract awarded. We took advantage very early of the Z100 small computer requirements contract to get the computers we needed to set it up. I might add, at a substantial reduction of what another company would offer in terms of their PC. The timing was right. Now, are people being led, dragged, kicked into the 21st century? To a certain extent, that's true, but I think that we never would have done it unless somebody made a decision and said, "This is what we are going to do" and put money on it. You

are never going to get a training program started. You're always going to sit around and talk about it, and you're never going to do anything about it. My answer to that was, "Let's get some money and let's do it." And we've tried very, very hard to get the system up and on-line. I think that we are going to be successful.

The mainframes are going to be installed sometime in August at the Headquarters and over at P50. We've already trained roughly 1,300 people in basic Peach Text processing. That's all the way down to the AOs so they're familiar with the computer; know how to bring the computer up, use it for word processing, and use spread sheets. That was a one-week course. We have 60 people going to school now in St. Louis learning networking concepts. They're going to come back to be individual DCS trainers, and they're going to train the people within the various pockets of the Headquarters how to do the networking, how to archive, how to do electronic mail, and so on. My point is that unless you make the decision that you're going to do it, you're always going to talk about it. It was traumatic, I guess, that we disbanded the word processing center, and people were displaced as a result. It was a step that was hard to take, and personally, for those who worked back there and gave us those many years of dedicated service, it was a tough decision. It had to be made to move the Headquarters into this automation environment. There are certain folks who are a little older and a little afraid of the computer. I put myself into that category. I have to say, honestly, that it mystifies me, periodically, as to what I can do with it. I have two choices. Do I let the thing sit there on my desk and look at it or do I try to learn it? The interesting thing about it is that if you go down to the staff meetings when we first put the Z100s into the DCSs, there was a little bit, one might say concern, on the part of the other DCSs. What am I going to do with this new piece of gear that's sitting on my desk, other than sit and look at it? So, the first week or so goes by and then you come into staff meeting and they're swapping war stories about what's happening to the Z100 as they begin to play with it. Occasionally, I'll get a call at home at night and they say, "This damn thing doesn't work right." I had one DCS call me up and said, "I know how to do it ..."

Col Mitchell, who was here as the DCS/DE, came in one day and figured he didn't know how to type. So he found himself a software package downtown, and he lugged it in to learn how to type as a result of what the computer showed him. So across the spectrum of what's here, the DCSs are supporting it. I think they are a little bit afraid of it at this point because we're kicking them into a new arena, but they're starting to get enthusiastic. My good LG friends have already got so many software packages they want to develop downstairs that I can't keep up with the requirements for the things they want to do with the computer. From originally a reluctance to field it, now there seems to be a growing acceptance.

I think there are people still skeptical of the system. I think there are some folks nervous about using it, but by and large, it's just another one of those things you go through in a transition. We're going to have to dispel the myth that you need to be afraid of the computer. As folks begin to use it and find out what they can do with it, it becomes a tremendous opportunity to make their jobs easier. It's gradually taking hold in the Headquarters. Some folks will NEVER step up to the computer business. I'm sorry to see that. I think all of our folks have to do it if they are going to survive in the Headquarters. Let me talk a little about youngsters though. In this DCS, I'm having a tough time keeping the youngsters out of my door who always want more money to do better things. They've come in recently and asked me to purchase 200 laptop computers. I guess when we sized out the Headquarters, we figured we'd get one Z-100 for every three action officers. It turns out now that they want the computers on their desks so they can construct their own documents from their desks and then go unload them in the CPT. We bought 200 of those, and we got an option to buy 200 more. We're also trying to look at a place where we can create a central checkout repository when you go on a trip so you can take a laptop with you if you want. I've used it, taken it on a trip, constructed my trip notes, come back, and dumped it into the machine at the interface. It appears on my secretary's screen and I can get a trip report out of that. A lot of uses. The initial hurdle is getting folks to accept it; we're roughly 50-50 right now in my estimation. But the more people use it, the easier they find it's going to be in doing their jobs. I think it's going to gradually gain more and more acceptance in the Headquarters, and folks are

going to move in that direction very quickly. There's a concern I have and I think the Chief of Staff has expressed it too. That is if we bring our action officers in the field and train them on how to write IOIs and staff summary sheets with a computer that we don't neglect to train them so when they go to another major air command that doesn't have this capability they still know how to do it the manual way. We're going to have to at least keep that in mind because we don't want to train all our folks to be computer guys and do everything with a computer and then get stuck in another major air command and not be able to adapt. That is a concern that we have in advance of some of the rest of the Air Force, and when our people leave and go to those jobs, they are going to have to go back to the old way of doing business. I agree we need to train them, but when they get there they're going to find out how inefficient it is, and they're going to start yelling and screaming to get them the capability. So, it's a two-way street on that one too.

TY: It's really a plot.

KR: Well, I wouldn't use the word plot. I think it's a common business strategy, and the bottom line, the real bottom line for me on this whole issue is productivity. I don't think you can do your job in tomorrow's environment the way you're doing it today. You have two choices: don't get your entire job done or become more productive and use the tools that we have given you to be productive.