

## YALE-UN ORAL HISTORY

Interview with David Kay

James S. Sutterlin, Interviewer

April 10, 2000

McLean, Virginia

**James Sutterlin:** This is a Yale-UN interview with David Kay on April 10, 2000, in McLean, Virginia. The interviewer is Sutterlin.

Mr. Kay, I will call you David for the purposes of this interview. First, I would like to express Yale University's appreciation for your participation in this oral history. I'd like to begin by asking you to describe your own background that brought you to association with IAEA.

**David Kay:** It's difficult to ever know, near the end of a career, how you got to where you did. I have a Ph.D. from Columbia in Political Science and Economics, but I started out as an undergraduate thinking I was going to be a physicist. I realized I didn't want to spend, I don't have the personality to spend the rest of my life in a lab, and I was really interested in the interface between politics, economics and science. So I went to Columbia, which was a fortunate choice, because Columbia had a history of allowing people easy ability to audit other classes. Both as a graduate student and later, when I taught at Columbia, I continued to attend physics seminars, certainly not at the level of people capable of being able to do anything, but I was interested in how science was

going to interplay with the rest of society. I started a pretty normal teaching career, I went out as an assistant professor at the University of Wisconsin. After a little less than a year, I got a call from Arthur Goldberg, asking me if I would come to work for him. I lateraled in as, and you'll recognize the old category, as an FSR, an FSR-5, actually. And then when Goldberg left, I was offered the opportunity to convert to an FSO, but I decided, having sweated away to get that Ph.D., I really wanted to go back and do a couple of books. I taught at Wisconsin and Columbia, and then came to Washington for what was only going to be two years to head up a National Science Foundation project on the interrelations between science, politics, and global—what is now called—transnationalism—it wasn't then. So I did a series of books on the impact, one on safeguards, nuclear safeguards; one on pesticide residues in food, and the necessity of regulating them as food crossed international boundaries. I was finishing that study, which ended up continuing because the State Department I&R put some money into it, it ended up being almost a four-year study, a series of eight books came out of it. I got a call from a friend in the State Department, John Fox, who was in IO, you may even know John...

JS: I know him, yes.

DK: ...saying that they had convinced Amadou M'Bow who was the Director-General of UNESCO, to put an American in his cabinet, and wanted to know if I would be the sacrificial lamb. M'Bow was—fiercely anti-American is the wrong way [to put it]—extremely skeptical of U.S. foreign policy and U.S. interests. I went there, it was in the

summer of '78, there again only for two years, but I ended up staying five. We were about to come back to the U.S., and I got a call, it was Earl Sohm, who you also probably know, he's now deceased...

JS: Very well.

DK: ...who was at that point in the United Nations Joint Inspection Unit, saying that Hans Blix, who was the Director-General of IAEA, was hunting for someone who knew something about evaluation. They were under pressure from donors for the evaluation of their growing technical assistance program, and would I be willing to go fly over to Vienna and talk to them. And so I said, "sure." Although I said, "We have every intention of coming back to the United States." Particularly, my wife had every intention of us coming back to the U.S. I flew over. It was right at the point, Americans had been under a cloud there because of the Osiraq bombing by the Israelis, and the result was that the IAEA suspended Israel, the U.S. retaliated by limiting its cooperation, et cetera, and that was just coming unglued. And so we discussed whether I would be interested in coming there and trying to do there what I had tried to do at UNESCO, which was to set up an overall evaluation program that would give both donors and recipients confidence with the programs one was getting and the other receiving, in fact working towards the goals that were stated. I decided I was interested, and so we went there.

When I got there, I was not in the Safeguards Department, but there is a history, which even continues to this day, and it goes back to the founding of the IAEA, of tension between the Director-General, and the Safeguards Department. The Director-

General, because he is elected by all members of the IAEA, and for the last twenty-five years or so, that has been a predominantly developing countries, is under pressure for the promotional activities. The Safeguards Department sees its mandate—just like the Safety Department in another way in the IAEA, but it's much more striking in Safeguards—its mandate was to insure that no diversion was taking place from inspected material. It intended to be, wanted to be, very tough and tight. In the politics of getting elected and continuing to rule as a Director-General, there was a strong tension there. And the Secretariat, the Safeguard Secretariat had erected a series of rules designed to keep the Director-General out.

It culminated in about '88, when there was a *Der Spiegel* so-called leak of a classified IAEA safeguards report, which seemed to show that there was nuclear material being diverted everywhere, and *Der Spiegel* blew it up into a big article. The irony is, as you know, anything classified in the UN system is about as insecure as being published in the *Washington Times* and *Washington Post*. There is no security system. The report was written in such a technical way that it was susceptible to gross misreading. The Director-General decided that this was becoming politically intolerable. I'd done other special assignments for him, I had the ability to do a "quick pen," thrown the topic—it's something you either learn or you don't learn as you go through life. He asked if I would take the responsibility of rewriting the Safeguard Implementation Report, and rewrite it and restructure it, review and restructure it in such a way that that report could be available to everyone. That it was silly to classify something, even though we didn't really control it, it only made it seem like it was more important than it actually was. And so I did that. It took about six months of my time, working with the Safeguards

Department. I got to know their process and their limitations. And then I went back to what I was doing, running an evaluation program for the technical assistance project. That required that we had review of all agency TC projects around the world, so I was often in other places.

When the Gulf War broke out, I was actually in Bangkok on my way to China. I had been invited by the Chinese to spend two weeks there. They were at the early stage of their nuclear power program, and had run into a serious problem. It showed up, first of all when, in a reactor they were building, the workers forgot to put a layer of rebar steel in the concrete, and they knew they had, but they didn't discover it until another layer of concrete had gone on top, but they didn't want to be criticized, or to inform. So they just continued until by luck one of the foreign contractors discovered it. It was a culture problem, a problem of criticizing those above, or even engaging in self-criticism, identification of mistakes, and the Chinese were smart enough to recognize that in a nuclear power program, if you didn't have full and open communications, you were going to have a disaster on your hands. And the Chinese in the IAEA had been a late but strong convert to our evaluation program, because we essentially tried to call things as we saw them, whether they were flattering to the IAEA, or flattering to a member state or not, we reported it. So I spent two weeks there, watching the Gulf War through Chinese television, in which case we didn't do very well, I must say. The Chinese had a lot more American planes shot down than were shot down. That was when the air war started. I came back to Vienna and spent a couple of weeks, and then came to the U.S. to go skiing. So when the land war part started, I was actually skiing in Telluride, Colorado.

I got back to Vienna right as the war ended, and I'd been back I think a day, and Bill Dirks, who was the senior American, the Deputy Director-General for Administration, called me up. He said, "The Director-General will be calling you later in the day, so please stay around. He wants you to be involved in doing the inspections that have to take place in Iraq. You know the history of 687, why there is a role for the IAEA." And so finally at about seven o'clock at night, I called Nina Alonso, who was Blix's personal assistant, and said, "Nina, I've been told to stay around, because the Director-General's going to call me. It's seven o'clock, I'd like to go home if he's not going to call me." "Oh, no, no, don't go, he'll call you in a few minutes," [she said]. And so Blix called and said he was putting together a special team, what became known as the "action team"—it sounds more like a Japanese toy, I never liked the term—and he wanted me to take over responsibility for management. And so that's sort of how it came to be, that part of it.

The intention was, the original intention, was that I would handle the internal management, getting the teams put together, getting them out in the field, but not that I would be engaged in inspections. It really is thanks to the Iraqis that I ended up having anything to do in the field with inspections. The first inspection team went in, did a normal IAEA type of inspection by and large, didn't find anything, and came out. And then the U.S. intelligence community, in a stroke, not of genius, but of real luck—an anomaly showed up. The photo interpreters were looking at the photos of Iraq right before the inspectors went in and noticed that the Iraqis were burying a large amount of material just off the side of Tuwaitha, where the main nuclear research reactor was.

JS: These were satellite photographs?

DK: Satellite photographs, or to be really safe, national technical means, but you can now say satellite photos, so it's all right.

They didn't call it to the attention of the inspectors. They thought, well, this site was heavily bombed, they're just cleaning it up. At the end, right as the inspectors were leaving, the photo interpreter that looked at it noticed that they were unburying the stuff that they had buried, and starting to move it. And it happened, and this is real luck, because of the number of photos taken and photo interpreters involved, that he had been the photo interpreter the second week of the bombing on a site outside of Baghdad not identified as a nuclear site, and remembered that the shapes, which were unusual, he had seen at that site. And so a reanalysis of photos showed, and no one knew what they were, but some strange things had been moved off-site to keep them out of the inspectors' range, buried, and as the inspectors were getting on the airplane, and literally at the same time they were getting on the airplane, they started unburying them and moving them. And that these had been associated with another site of unknown purpose was really suspicious.

So the decision was made that a special inspection should be quickly ginned up, and go to Baghdad and confront the Iraqis with the information, and demand to have access to whatever it was that was buried. I think the reason... Two people were chosen to lead it, Maurizio Zifferero, who was the Italian, who was the head of the action team; we had two deputies, myself and a Greek, Dimitri Perricos. I was chosen, I think, primarily because there was a certain amount of intelligence material that was going to be

shared with the team. It's hard to remember, because in nine years, such a trans... In those days, A., you couldn't refer to satellites as satellites, it was NTM, National Technical Means. The photos were viewed as the countries' crown jewels of intelligence, and today you can pick up a magazine, or if you want to go out to Reston, you can buy one meter imagery commercially, and no one thinks anything of showing it. But in those days, it was considered...the only thing of greater importance and of higher classification was cryptographic material, signals intelligence. And I think it was partly because of that, and was partly physical, Zifferero was not in the best of physical shape. We went there, we confronted the Iraqis...

One prior story, which is important. We all agreed, there was no disagreement in the IAEA, that if we were going there and confronting the Iraqis, there was nothing better than to lay the photos in front of the Iraqis and say, "We want to see this. It was at this location. You moved it. Take us to wherever you moved it." And this gets back to my earlier comment. The initial reaction from the U.S. team supporting UNSCOM and the IAEA was "No, you'll never be allowed to take photos like that and show them to the Iraqis. And I think, because some of us were heavily influenced by Adlai Stevenson in our youth, and remember the dramatic impact he had, in fact, of laying photos during the Cuban Missile Crisis on the table of the Security Council, and the statement, "I'm prepared to stay here until hell freezes over, Mr. Gromyko." The decision was appealed, I am told, although I must say I do not personally know, I know it went to the National Security Advisor, General Skowcroff, because he's told me that. I understand, although I do not have direct knowledge of it, that President Bush personally made the decision that we could not take it. So we were not entirely happy, because all of us realized that the



Iraqi counter would be, "I don't know what you're talking about. Show me what you're talking about." And then you can't show them so you stand there... and sure enough, that's how the Iraqis played it. We arrived in Baghdad, the minister of foreign affairs, whom we had asked to meet, was away at an Iraqi holiday, and his son or daughter's wedding, I think it was his son's wedding, he said. So the meeting took place at about eleven p.m. at night. And sure enough, the answer was, "I don't know what you're talking about. You're free to inspect, but you know unless you can show me, I can't, we can't be responsible. We don't think there's anything." The intelligence community had located and lost and then located several times some of the objects that had been moved, and we had a location of where we thought they were. So the next day, the Iraqis said, "We'll meet you at your hotel, you take us, you show us where you want to go and we'll go." So the next day in the morning...at that point, the IAEA was playing under the rule that Dr. Blix had established: that we were to give the Iraqis at least twenty-four, and if possible, forty-eight hours of where we were going to inspect. Because the typical IAEA inspection is never a surprise: the country knows exactly where you're going.

JS: Now this is the time of the first inspection.

DK: Well, it's the time of my first inspection, which was actually the second IAEA inspection.

JS: Second inspection.

DK: Second inspection. We told them that night where we wanted to go, they said, "We'll meet you," they met us the next morning, took us out. And something that's very, very strange, after the Gulf War, and I really never understood it: they took us to a place that was not where we had asked. And we said, "That's not where we wanted to go." And they said, "Oh, yes it is, we know our country, this is where it is." And we had, at that time, a GPS. Now you would have thought after the Gulf War that they would have understood the ability to do precision locations, and today, nine years later, when everyone has a GPS, some in their cars, it's hard to imagine how much of a mystery they were. We pulled a GPS out and said, "No, this is where we are." And so they [stalled], took us all out into the countryside, still denied us access to where we wanted to go, which was, they said, where high ranking members of government lived, and we couldn't go there.

We tried to inspect a military camp that was adjacent to there, and there again they said, "You can't go into there, we don't have permission, you have to give us twenty-four hours notice, come back the next day. In the meantime, they had been observed moving the material to a camp right across the road. We went to the camp across the road, they said, "No, you didn't ask to go here, we can't let you go in." And we could actually hear the noise of them moving the equipment. I and one other inspector, an American, and a New Zealander, who was the driver, while the bulk of the inspection team was at the gate, I took a jeep, a Land Rover, and we drove the perimeter, there was a road along the perimeter. After about, it couldn't have been more than five miles, the fence was right next to the area where they were moving material, and there was bamboo growing, but it wasn't very tall or very thick. So we stopped the Land Rover, and

surprised the Iraqis. They weren't used to people doing independent movements, so it was just the three of us in our Land Rover. We climbed on the roof of the Land Rover, and were able to see over the bamboo and the fence, saw that they were in fact moving things that had the shape of the material we had seen, we photographed it, recorded it, and then got in the Land Rover and drove a little bit further. I hadn't seen in the overhead [image] of this base. There were actually two bases together, separated by a fence. The base, we drove around the second one, which was where they trained their air defense forces in surface-to-air missiles, and they had none of the material we wanted. But it also adjoined the other base.

Well the three of us rolled up, and demanded access, and the flustered Iraqi should have kept us out. We were the UN, and by acting like you owned the world, you got in. We got in that base, when we got over to the edge of it where it abutted the other base; it had a fairly substantial building. We managed to climb up onto the roof of that building and had a very good view, and photographed the material they were moving in the adjacent base. At about that point, I think no more than ten minutes, the Iraqi security forces arrived and we were forced to leave. We went back, demanded access, they said no, et cetera, "But we'll give you access to the base we didn't give you the other day." So we went there, and at that point it seemed to be clear that they weren't going to give us access to any location that contained the material we were seeking. So Zifferero and I contacted Blix back in Vienna, and Blix took the decision to recall Zifferero and of eleven members of the team, he recalled six and I was left with five people, five or six people, and told to continue to try to press the Iraqis until I was told otherwise. After Zifferero left, it was clear to me that as long as you told them the day before where you

were going, you were unlikely to find anything. Either they would move it, or if they couldn't move it, they would deny you access on some ground. There was a group of five of us. The rooms were bugged, and heavily monitored. So the only way to carry on a semi-private conversation...

JS: You mean in Baghdad?

DK: In Baghdad, in our hotel rooms. So the only way to carry on a private conversation was to go walking and the usual, continue to turn, and try to stay close to noisy roads. We did, the evening before, and I asked everyone's opinion; it was a toss up. Some people wanted to immediately do an unannounced inspection. Others wanted to give up, pull out, and just say the Iraqis were frustrating. I said, "I think there is a middle way, and let's try it." In dealing with non-English speakers, and learning several foreign languages myself, always the most difficult part is the prepositions. Prepositions are really the way you separate a native speaker out. So I said, "Let me try something that night." And so the Iraqis asked me where we were going the next day, and I said, "We're going toward," and named the base that we had been before. Now, "toward" and "to" is a fine distinction in English. So the next morning they rolled up. I'd asked my driver, who was our communications officer, the New Zealander, if he would try...typically, the way it was laid out was that you would have Iraqi security personnel in front, a few cars and our bus in the convoy, and then Iraqis bringing up the end. The chief inspector, at least when I was chief inspector, I always insured that I didn't, as much as possible, I didn't

travel in the bus. I traveled in a Land Rover with three or four people. The reason was that the bus was bugged, monitored. The Land Rover was really harder to monitor.

JS: It's open, right?

DK: It's open, simply in the open. So it was easier to at least carry on whispered conversations. And I asked him, "As we pull out, in going towards the base..." I jumped part of the story, let me go back. We were lucky, or thought we were lucky. The intelligence community that was monitoring the Iraqis thought they had spotted where they had moved the material. And it was literally along the way, and it was just past, it was about two and a half kilometers past where we had been in fact engaged in inspections or inspection efforts over the last week. So literally, that's why I hit on that "toward."

JS: Let me just ask, this was before you had the U-2, though, right?

DK: Yes, oh yes, unfortunately. It would have been a lot easier. So there was a police roadblock on the highway that we had to go through. And I said, "Stick behind the Iraqis until we get to the road block." That was the last roadblock before, where they thought we were going and where I wanted to go. I said, "As we pull out from the road block, cut in front of the Iraqi security officers in your Land Rover, and see what they do, and then we'll go." Immediately, all hell breaks loose. They start, when we do this, they start honking, lights come on, everything. I said, "Just keep on going." And finally, they

pulled us over, pulled around and really cut us off and pulled us over. They said, "What are you doing? Where are you going?" et cetera. I said, "Oh, we're going toward, it's just a little bit further, the base." [They were] upset, "You've got to tell us where you're going." I said, "I don't know, it's just like down the road." They said, "You've got to stay behind us." And I said, "Okay, fine, we'll stick behind you, get in front." Because at that point, we were only about three or four kilometers from where we were going. I knew that since they didn't know where we were going, they would keep on driving. It was a typical Iraqi divided highway, but there wasn't a ditch. There was a green area between the lanes, and so you just turned across. And so we were going down that, we were trying to figure out, because none of us, at that point, we'd been in Iraq when they were moving, so none of us had seen overhead photography. I only had a coded description of where it was, and it turns out the photo interpreters look at photos in reverse, and so you've got to remember, it's like looking in a mirror to reverse it. In the description, they had put the landmarks on the opposite side of the highway from where they really are, so this was a real adjustment. And we got maybe no more than three hundred meters past the gate to the base where they moved the stuff. So I told Tim, the New Zealand driver, "Just cut across the green." He did just a flying U-turn across the green, and we rolled up at the gate of this military base, and we had none of the rest of the inspectors, they were still in the buses going down the way, and we had no Iraqi security officials.

So we hopped out, I went to the gate, and demanded access to the facility, in the name of the Security Council, the UN, and any...you try to confront people in order to gain access. That was the way at least I handled the situation. After all, it had been a week of frustration. And the poor guard at the gate was just, he was just frustrated: "I

can't let you in, don't know anything," et cetera. By that point, the Iraqis rolled up, they had done a U-turn themselves, and came back. The security guards were frustrated, they were mad. I think some of them, although I don't think most of them, I think one or two of the senior people knew what was on this site. [They asked], "Why are you calling here, why do you want to go, you haven't asked to go here." I said, "Look, we have the right to go anywhere in Iraq that we want to without limits. We've been giving you notice, you've been keeping us away. We're here in the name of the Security Council, and I declare this a site subject to inspection under 687," the standard speech. [They answered], "Sorry, I can't do it, don't have permission." At that point, the guy who was in charge of the base came to the gate, and said, "We've got to contact our commander." I said, "I demand right now."

I'd set up a satellite [telephone]. One thing I did, any time we stopped, I set up a satellite telephone. Partly because I've never gotten any trouble for having too much communications. I've gotten in trouble for having too little. But also, because here again, it's a difference of nine years. In those days, satellite telephones were really intimidating. Not everyone had them. Now every journalist, businessman has them, so you get no intimidation effect from them. I said, "If you don't let me in, I'm going to call the Security Council, right now." And this commander made a, what turned out literally to be a total fatal mistake. He said, "I can't let you in, there's nothing on my base; however, and if you want to put men on the water tower that is inside the fence line, you can observe the base." There's a picture of the water tower, right up there. So I sent three people up to the top of the water tower with video cameras and binoculars and walky-talkies. And on the video tape, it's ninety seconds into the video tape that you suddenly

see the large dust clouds out the back of the base as vehicles.... Now here again, the photo interpreters had assured us, you don't have to surround the base, which with six people we couldn't have, they said there is no back entrance to this base, or an exit. It's only three entrances at the front. Cover those, and you've got it made. Well, it turned out, it was, it was very small, it was an emergency exit. In the photo it just didn't show up. It was too small to show up on the photography. They were carrying the calutrons, these very large soft iron magnets, on tank transporters, which are very large. Because they'd moved them quickly from the other side, some of the tank transporters...I used to have some pictures of the Iraqi tank transporters...had these gates, and they were down, and that was what was making the dust clouds, as they hit the gully, they had to go on the outside. So I just split the team, and dispatched three of them around to try to get around the base and get photos of these.

To make a long story short, they managed to get photos of it, which was the first damning evidence of it. The base commander, he violated simple military tactics. He gave us the high ground. In his defense, it is said, and I believe it's true, he didn't know what was on his base—typical security garbage, compartmentalization, they didn't tell.... Security forces in Iraq, not only in Iraq, around the world, tend to run riot over others. They'd moved stuff on this base and didn't bother to tell the base commander, so he didn't know it. It is said that the next day he was shot for allowing us to have access to his base. And it genuinely was a fatal mistake because until you had those photos, we only had satellite imagery, and we had these.... We actually managed to get undeniable photos close up of the calutrons, and it was a long convoy, more than eighty-five vehicles, moving the things. So it was really quite impressive.



JS: Which is an indication of the weapons intention.

DK: It was in indication of enriching Uranium, high enrichment of Uranium, which has one purpose, and that is weapons. It's a technology that was a remarkable technology to choose for what they wanted to do. You may have heard this story from others. After the Osiraq attack on the Iraqi reactor, we later learned this in the course of inspections by talking to Dr. Jaffar, who was the father, the Oppenheimer of the Iraqi program. They had been going the Plutonium route, which requires a reactor; the Israelis destroyed it...

JS: Was Jaffar the deputy director of the atomic...

DK: Yes, he was technically the deputy director, but he was actually the brains. The director was a political non-entity, well, a scientific non-entity, a political entity. Jaffar said, "Look, they evaluated how they could go," he knew of this particular technology, the first technology used in the U.S. program, but abandoned by 1944 for the more efficient gaseous diffusion method. His own scientific field was something that was close to this, he knew he could do it, he knew he could do it better than we did, he knew that no one would look for this, because it was a long-abandoned, almost a discredited technology because it was so inefficient. And that's what we found. When we found that, no one questioned it. If they were doing that, they had a weapons program.

JS: At that point.

DK: It changed the whole complexion, it really did.

JS: Just to clarify something, under the resolution, the responsibility was given not to the Atomic Energy Commission, but to the Director-General. And you were working, in this sense, you had been on the agency staff. Were you still on the agency's staff?

DK: I was still on the agency's staff, I was technically dual-hatted when I led an inspection mission. I was both the IAEA chief inspector, as well as the UNSCOM chief inspector. This was something worked out with Rolf Ekéus, that 687 was crafted...the original draft of 687 did not have any role for the IAEA. It was the French that insisted that there be a role, the compromise was that if it's going to be the IAEA, it couldn't be their board of governors. And the reason for this was that Iraq was almost always on the board of governors, it was recognized as not being likely to be strongly in favor of inspections, it had people like the Iranians and others who either were or had been on it, the Argentines, who at that point had a dirty program, so it was crafted [like] that. And the agreement was that under these joint inspection teams you would have both. Now the actual designation of a site for inspection was an UNSCOM preserve, so I had documents signed by Rolf Ekéus, designating a site, which only required my signature on it as well to make it official.

JS: In reporting back through the IAEA channel, did it just go to Blix?

DK: No, this was a continuing issue of conflict, and quite frankly, played differently by different inspectors. I never had any problem with Rolf Ekéus, really, well, one slight one, but I had great respect for him, and he treated me with respect. I realized that a lot of the support—and it's partly because of what happened on the first inspection—when we got in trouble, when the team that went around to photograph the Iraqis moving materials—they had shots fired over there—when that occurred, I called Rolf Ekéus because of the Security Council. There was no purpose in calling...you know you've got one phone call, someone's shooting at you, you don't get a chance to make a party call, and in those days you couldn't do a conference call on the satellite. So I picked the one number, and it was less that it was Rolf, than it was that Rolf was an organ of the Security Council. And this is where your old boss either did us a great favor, or I don't know why he advocated this; it was the first special organ of the Security Council like that ever created. I mean it reported to the Council, not through...

JS: It was unprecedented, that's right.

DK: So I mean, my call was there, if someone's shooting at you, the only thing that's going to protect you, other than Lady Luck, is really going to be the Security Council, the knowledge of the states that are there. I always, at the end of each day, I wrote a report of the day's activities. And I faxed it simultaneously, well, 'simultaneously' is wrong because you couldn't do it simultaneously with the UN. I did it serially to UNSCOM headquarters in New York and to Blix. And usually, in fact, I sent Blix the first copy. Now because of time differences, it was often read in New York, and because New York

staffed up twenty-four hours a day, finally, it was often read in New York before it was read in Vienna. But I'd do a report of that. On a later mission, that caused a great turmoil and problem, and I was ordered to never do that again. I continued to do it.

JS: But Blix was able to keep this kind of report from the board of governors?

DK: Well, it's yes, in part. Blix convened routinely a Perm-5 subset of the board, which was the same Perm-5 as in New York, five Security Council members, although the Perm-5 had no recognition in the IAEA statute. And to the best of my knowledge, at least in the period I was there, that was the only time the Perm-5 was used. Now with regard to the Perm-5, it was not a case of showing them the day-to-day reports, it was consulting with them about what was happening, often complaining about UNSCOM, or complaining about the lack of data, or just sharing, and it was a pretty full and frank meeting. With the board, our formal report—after each inspection, there was a formal report written—that was made available not only to the board, but it was available to every member. In fact, my secretary used to keep track of which countries came around to ask for copies, and always the first two were Iraq and Iran, that's interesting. Before anyone else, they were at the door asking for a copy of it.

JS: So Iraq did have direct access to that.

DK: Not to the daily reports, but to the summary of each mission report, they did.

JS: And they of course would in any event have had access to the reports that were submitted to the Security Council.

DK: Absolutely.

JS: By Ekéus' office, on that basis.

DK: Yes.

JS: But tell me a little bit more about this question of information and intelligence and headquarters. The UNSCOM headquarters was in New York, IAEA was in Vienna, and there was this staging area in Bahrain. How did that work together? Did the IAEA side have the same access to intelligence that UNSCOM did?

DK: The feeling, if you ask most people at the IAEA, was that they did not. And I can only speak with certainty during the period that I was there, although I continue to talk to a lot of them. I always thought that was less reality than it was with, I think with no exceptions, in the early days, there was no one on Blix's staff, and certainly not Blix, or on the action team, that had ever had any experience with dealing with intelligence and the [US] government except myself. They were always complaining that the intelligence people weren't giving us enough, that they were always saying, "There are some things I can't tell you." And I said on, I forget how many, occasions to them, "This is always the case with dealing with the intelligence. They often tell you, 'if you only knew what I

knew, you wouldn't say something stupid,' and you say, 'tell me what you know,' and they will say, 'no.'" I'd say, "This happened to me in the government, it happened to a U.S. ambassador that I was a personal assistant to. It's just the way spooks operate. So don't feel bad."

Blix and Zifferero and Dimitri Perricos were absolutely convinced that this was a result of a conspiracy between Ekéus and the intelligence community. Now what happened, which was unfortunate, was that it was true...the information would come in, and if they decided to brief anyone in UNSCOM, they would brief New York, and then the same team would fly, and brief Vienna. It was partly the result, I've later learned, the result of the communication equipment that they had. They could not transmit—it's strange, now you can do it routinely, however not easily, in the case of Kosovo—we transmit that imagery digitally, you didn't have that capacity. So you got a small number of briefers, and it was fought out in Washington as to what was releasable to UNSCOM and the IAEA. Not everything was judged releasable, because quite frankly, the UN and IAEA were not secure. This was pre-fall, it was pre-Yeltsin, there was great concern, I'm told, about leakage of material. Some of it involved humint and that's always hard for the intel community to share with anyone. I mean, they'll share some of the results and conclusions, but not identify where it came from. Some came from sigint, which is equally hard to share. They would then...the briefing team would be formed, with the material that they could release, and the answers—it was a script, really—of what they could say. They would go to New York, and then they would come to Vienna. So there was always, from the very beginning, suspicion. But I think it was largely a result of

inexperience of the IAEA and of the intelligence community in dealing with international staff.

Now having said that, I must say, although I think I was always treated well, and it's probably because I knew what questions to ask, I knew how far they could go, and I knew how they could tell you...you learn if you're in the Washington policy community at any time, you learn how to ask intelligence people questions they can answer. You don't ask them, "Who's your source?" or you will get no answer at all. You try to ask the basis of it, and walk all the way around. I just knew the script a little bit better. There was always a belief that I got a separate briefing. I never got a separate briefing—that didn't happen. I always thought that probably in New York, because Bob Gallucci was there, Bob also knew how to play that game, and knew how to play that game better than I did. Bob was also playing—and he had more friends and he was closer to them, in New York, that there might be some little additional information going to UNSCOM. I never thought it was operationally significant. And what we also forget is that we proved by the inspections that intelligence didn't know everything, and a lot of what they knew was simply wrong. That's why on-site inspections were so much more valuable than the intelligence by itself, because you added to, and disproved a lot of the prevailing wisdom. But that was a source of hostility, without a doubt, and it grew, I mean it became a big issue between Ekéus and Blix.

JS: Right. Well, now when you did put together a joint team, you were chief inspector?

DK: I was always chief inspector.

JS: But would you have an UNSCOM element in it?

DK: I would have an UNSCOM element in it. Now the UNSCOM element was often only technical people provided from national governments by UNSCOM, who were weapons experts. The IAEA, despite being an atomic energy agency, has no mandate, no mission in the weapons area, no continuing program or expertise, so while there were a number of very good technical people on the IAEA staff, very, very few of them had ever had any experience with a weapons program.

JS: Were new people recruited for that?

[End of side 1]

[Beginning of side 2]

DK: ...first, states made available to UNSCOM, experts on nuclear weapons, just as they did on chemical, biological, and missiles, and they then provided them to the these joint teams. To say the least, the Director-General was not happy about this, because you would have members of the team that would show up, they were from the national labs, the IAEA had no knowledge of them, and there was suspicion and animosity at that period of time. Quite frankly, there was no other way around it. You needed, if you are



looking for nuclear weapons, you need people who know nuclear weapons, not radio-medical isotopes.

JS: But the IAEA was not subject to the accusations that UNSCOM was subject to of having placed, having governments place...

DK: I think that's right, although there were accusations made against people, including myself, that there were people on the team who were operating as intelligence agents. And that's really got to be separated two ways. One definition of intelligence is that you're trying to find out something that other people are trying to keep you from finding out. [By this definition,] All the teams were out to gather intelligence. I mean if the Iraqis had lived up to their obligation under 687, and presented everything that they were supposed to, there would have been no need for this. The dynamic of discovery, and consequently, of access to intelligence, was a result of an Iraqi decision not to come clean.

JS: Let me go back again to Bahrain, where there were, I think, at least two installations. Was IAEA involved in those or not? There was the U.S.-U.K. one, which was classified.

DK: In the UNSCOM facility, the one that was at the airport, or eventually became centered in Riley airport, the IAEA was asked to use it, I always used it.

JS: You did.

DK: On every inspection. Dimitri hated to do it, he thought it was a symbol of UNSCOM, and Zifferero hated it, thought it was a symbol of the UNSCOM's power, that it was Ekéus who was insisting that we go through it. As we staged mixed teams, the one time we staged a team—it was the very first inspection, not my first, but the very first inspection—we staged it from Vienna, got the teams there, we didn't have the facilities. It was a long, horrendous flight; it just didn't work out. And what was eventually done by those teams that did not stage through Bahrain, I thought was unacceptable. They would just meet in the hotel, and then go from there. And that didn't forge a team, either.

With regard to the other facility, which was a support facility—what eventually became more than U.S. and the U.K., but that was its origin, certainly, the U.S. and the U.K.—I used it with my teams for briefing and debriefing. The intelligence communities would not brief at the UNSCOM unprotected facility, or they wouldn't brief up to a level that was very useful. If you went into their facility... I took not just Americans, I took a declared KGB agent, I knew he was declared, in fact, you probably remember him because he was head of the IAEA office in New York and while he was out of the country the *New York Times* exposed him on the front page, and so he didn't come back! But he later showed up as a Russian UNSCOM commissioner and I took him, as the first Russian taken into Iraq, I took him in on one of my teams. I took him into the facility to be briefed. I said, "He's a member of the team, I need him briefed, you're going to brief him." And they said, "Bring him in."

I also used it selectively for an after-action debrief, after we came out of Baghdad, and in addition to the written reports. The intelligence communities supported the IAEA and UNSCOM, and I think this may be what made much of the difference in the chemistry between myself and Dimitri and others. Intel guys, particularly in a hard target like Iraq, they're mostly staring at photos and they're listening to what little communications they can intercept, and trying to read the tea leaves, and defectors, and all that. They get a very strange picture of reality, and the only way that becomes a better picture is if someone who has access goes back, collects information, tells them that, feeds it, and then the next time they give you information, it will be a little bit better. And unless you have this cycle, they feed you, but you also feed them, and that's the only way you get improvement. To me, that seemed not illogical, it seemed in my self-interest. I really wanted the information they gave me the next time I went in to be better than what they gave me on the previous mission.

JS: Which means it was natural that the information that you found went back to national governments.

DK: It went back to national governments as well as to the IAEA and UNSCOM. Now that second facility, I didn't go there because some American told me to go there, I went there because Rolf Ekéus told me to go there. And so I did it under instructions, and so it was not a case of an American national or some other national on his own deciding to report to government. UNSCOM said, "You go there because we depend on them." I said, "Absolutely, I understand that dynamic, and I want better information next

time I go in than they gave me this time." And so it was that method. And I chalk it up less to... there was a certain level of personal animosity between Blix and Ekéus; it goes back to Swedish politics. Bob Gallucci and I always used to joke, and finally once we asked both of them. Every time they spoke in Swedish, the chemistry got bad. And we spent the next day trying to straighten it out. Once he and I agreed, and we both did it at the same time, we asked them not to speak in Swedish. We figured in English, and it's true, at least when they spoke English it didn't get as bad. But part of it was that the people in Vienna had little experience with dealing with intelligence, always thought someone else was holding back on them, didn't understand the dynamic—if the intelligence is really bad, help them correct it, because they've got access to things you don't have, and try to work with them. Some of the Intel people were easier to work with than others. The U.S. did not do a good job. The first person they provided was excellent, a woman, her code name was "mother" when we had to deal with her over open telecommunications. The second and third persons they put in were not as good, and were suspicious and a little bit more antagonistic than they should have been.

JS: Let me ask you something in that connection. Scott Ritter has said that he insisted on going to the Israelis because the Israelis were much better at reading imagery than the Americans were, and that they also had certain capacities that no other country had.

Were you still there when that happened?

DK: No, when I was there, in fact, we were in the effort to broaden our information. None of us were comfortable in having to rely entirely on the U.S. or the U.S. and the

U.K. We tried; I was involved in trying to get the French, for example, and the Russians. The Russians, even though I took the first one in, they wouldn't tell you anything systematic. It got a little better after... one of the things forgotten is that when Gorbachev was seized, and the coup took place, the first foreign country to congratulate the inept coup plotters was Saddam Hussein, who sent a cable. And so immediately after that, we got better cooperation, but it was still awfully spotty and I always remained suspicious that the Russians knew a lot more—they must have, they were in the country more than we had been, and we tried to.... But I have to be honest. I was troubled. The more we got into the dependence on intelligence. I'd spent my whole life in and around the UN, I knew the culture, I knew it was going to be a problem. I knew there were ways you could work it, but the more you formalized it, the more deeply and more dependent it became. You couldn't look the other way. Vienna was, I must say, awfully lucky, although I don't know how many times in my life I've walked across the street from the U.S. Mission. The perception it created, and the fact that the intel community would not brief in the UN Secretariat building, but insisted that the briefings be carried out at least at the Mission—they were always comfortable with the Mission—but at least at the Mission, created a symbolism that I thought was unfortunate and shouldn't have been. For example, when they came to Vienna, they would not brief in the UN building in Vienna. They insisted that we go out to the U.S. Mission for a briefing. I thought that was real stupidity, because they had to operate on the basis that anything they told us would eventually get out to everyone anyway. Why not come and brief it at the IAEA? Now operationally, I guess I appreciated the pressure they were under, but the symbolism was just awful. But at least during my period, it was primarily [the US]; there was a little

from the French, and actually the Germans provided some information in reference to missiles and a couple of the nuke areas, but by and large, it was a U.S.-U.K. [operation].

JS: How long were you there, David?

DK: I left after my third mission, which was the parking lot mission, when Blix said, "That's your last one, you can't go in again." And I said, "Well, if I can't do that, I'd like to go somewhere else." I wanted to, I guess it was the academic in me in some ways, I was afraid that the inspection process was going to be corrupted. I knew if I couldn't lead inspections, I was probably better off being on the outside, where I could speak freely, so I chose to do that. So I left, I think I technically left about January of the second year, January or February.

JS: Of '92.

DK: Yes.

JS: I want to go back to your contact with the Iraqi nuclear scientists. You mentioned Jaffar. In this relatively early stage, did you have contact?

DK: Oh yes. We were very fortunate in that the Iraqis were inexperienced at handling it. Not only with Jaffar. The number two person, the one they first nominated to see us, was an American-trained nuclear scientist, interestingly from Michigan State, and we had

daily contact with him. With the others, we had routine contact. It took the Iraqis a while to learn—most of the scientists spoke excellent English—so we would engage in technical conversations with them, and they would engage in it, and they occasionally let very important information slip. They answered; they got caught up, and answered a technical question fully. By, I guess it was the end of the second mission, because there was a major slip-up by an Iraqi on the second mission, they started to insist that they only speak in Arabic, and that they do the translations. But with Jaffar, we had long conversations with him.

The most important one was probably on the second mission, where late at night we were summoned to his office—he had two offices—the second office and the actually more important office was in the Ministry of Industry and Military Production (that's the English translation of it), a very large ministerial office. He was the number two there. We had a set of questions we wanted to ask him and go through, and we went through them. We were about ready to leave, and this must have been close to midnight. He said, "You know, we could have done"—this was in the period that they were still denying that they had a nuclear weapons program—he said, "You know, we could have done a nuclear weapon if we had wanted to. We were smart enough, and we knew everything." And then he launched in, no other questions, didn't give us a chance for follow up questions, launched in to a full technical description of how, if they had wanted to, they would have done a nuclear weapons program. Well, he gave away information that only if you had actually done it—you would not have learned this from a book—could you do it. And I mean, we were flabbergasted! He was conflicted. He's a man of the West. In fact, he was a scientist, and you can't claim anyone would have won a Nobel prize—that's a crap

shoot—but he certainly would have if he had stayed strictly with physics in the West, and been one of the world's top physicists today. He was drawn back into this dirty nuclear program, with most of his friends cut off, and his reputation as a physicist not respected. It really stopped when he left CERN, and left the West, stopped attending CERN conferences. He wanted us to know how good he was, and that was a fatal mistake. Another one of those fatal mistakes, really just revealing even more to us about their program than we knew, and opening up avenues of inspection.

So yes, and it tightened down after that mission, but they continued to provide not the routine deep [information], they got more control over it. But the first three inspections, well, the first two inspections, we had pretty full access to it.

JS: Were all of them pretty much Western-trained?

DK: Most were. There was a younger generation, they started in physics, they started giving Ph.D.s at the University of Baghdad in the early '80s. So the younger generation—and that was during the time of the Iran-Iraq war, when they were also controlling people going out—so there was a younger generation that was almost entirely trained [in Iraq].

JS: But you didn't find Soviet-trained physicists?

DK: No, and we asked them about that. There were some who were East German-trained, but not Moscow-trained. They were quite frank. The best training was in the



West. Their preference was to go to the U.S. If they couldn't go to the U.S., they'd go to the U.K. They liked Germany, West Germany, and only otherwise would they go somewhere else in the bloc. It disturbed us, because we couldn't believe it at first, why hadn't they. But that was their story, and they stuck to it, and we didn't find a lot of contrary evidence to that, that there was a group of Soviet-trained scientists that never cropped up.

JS: Yes. You touched on this before, I just want to pursue it a little bit, this Soviet question, because the Soviets had a treaty of friendship at that point. There were supposedly all sorts of scientific exchanges, and I think the Soviets did, at that time, quite legally, sell them some equipment that related.

DK: Yes.

JS: So my question is what evidence did you find of that Soviet connection in the nuclear field?

DK: We did find some equipment, not a great deal, not as much as they procured from the West, not as critical as they had. Here again, their argument was, "Look, we were paying top dollar, we knew that the best equipment was in the West, and if we couldn't get it from the West we tried to get it from Asia." On equipment, that was their second choice. "We only went to the Soviets when we couldn't get it [elsewhere]." I think partly this is... the Iraqis are an extremely proud, they were scientifically very competent... most

of them had been trained in the West... none of them who trained in the West studied on Russian equipment, Soviet equipment. In fact, it probably had an unfair reputation as being second-rate equipment. But you tend to use what you learned as a graduate student. You don't go out and try new stuff, so they placed orders, they wanted the exact scales and other stuff that they had seen in Western institutions. So there was not a lot of evidence.

The weapons route they pursued, that we know of, the two major ones, and there were three or four other minor ones.... The calutron program was a U.S. program. The Soviets had pursued it, but quickly abandoned it because they'd gained espionage evidence on the gaseous diffusion plant, and went that way, and then went to centrifuges. The plans that they used for their calutrons were U.S. plans that we know. The building was one laid out at Tarmiya was one laid out like a building at Oak Ridge, so that had U.S. fingerprints all over it. The centrifuges that they used were based on a German-Dutch-U.K. design they had gained by access to the consortium Urenco that runs that program. There was not a Russian centrifuge design at all. So there's just not much evidence there of it. And that was one we all pursued, because we all had suspicions. We all knew the Soviets had been there, that there had been close military cooperation in some areas, it just wasn't there in the nuclear program.

JS: While you were still there, had they, IAEA together with UNSCOM, begun to think about the permanent monitoring system?

DK: The first permanent monitoring plan was written while I was still there, and we were negotiating various aspects of it between... most of the negotiations were between IAEA and UNSCOM, who had quite different views of it. It primarily related to the issue... the IAEA's perspective was UNSCOM and the IAEA's part of the weapons inspection are abnormal. We must quickly return to the pre-war safeguard approach. And that was partly Blix negotiating these political shoals. The Board as a whole, and the general conference... you know safeguards were something the majority reluctantly went along with, because if they didn't they wouldn't get technical assistance. The intrusiveness, and it became more intrusive as the Iraqis decided to confront, was acultural. It caused problems. Blix himself wanted to get back as quickly as possible to the norm. UNSCOM, on the other hand, saw this as almost an open-ended issue after, for example, our second inspection. The Security Council passed that resolution, which among other things, said that Iraq could never have a research reactor again until some uncertain time in the future, no nuclear program. And that was an issue of considerable consternation for Blix.

JS: I noticed that; let me just ask you, were there any nuclear power plants?

DK: No, the Iraqis had had plans for nuclear power plants, as had the Shah of Iran, but the economics and the Iran-Iraq war had interrupted that. So all they had were research reactors. But they certainly had aspirations—on the books they had aspirations for one, but the Security Council not only ruled out power plants, they ruled out research reactors. So most of the pressure, at least when I was there, the contention between the IAEA and

UNSCOM related to the extent of invasiveness, permanence, intrusiveness of this sort of program.

JS: Yes, I did notice that, though the first plan that I think Blix presented for a permanent monitoring system did provide for unannounced...

DK: Yes. By that point, here again, it's amazing. We went from a place, during my first inspection there, from where no one was permitted to do unannounced inspections. And in fact, if I hadn't found anything, I think I would have been out of a job right then, because it was a real break with tradition. When I got back to Vienna after that first mission, which I think most of us viewed as a success, I had IAEA safeguard inspectors tell me I shouldn't have done it, I put their life in danger, people would think that they would do unannounced inspections, didn't I realize they couldn't get away with unannounced inspections, et cetera. And even, I had Americans, when I came here, who work at the U.S. On-Site Inspection Agency, who are the inspectors in the bi-lateral agreements we have with what was then the Soviet Union, now Russia, they too were... because in the bi-laterals there were no unannounced inspections, though there are now. It was a real break with the history of arms control, because arms control had been a carefully constructed... it was a minuet that was very formal, and all the hard issues were during the negotiations.

The assumption was, if you ever concluded an agreement, then you had negotiated it in such a way that in fact you are not going to cheat on it or you're going to cheat outside the rules of the agreement, so you'll stick to the agreement. And the

negotiations were very tough. I know in one of the U.S.-Soviet agreements, there was great negotiation over how you would measure a vehicle leaving a plant. And the agreement was on a yardstick. You couldn't use a tape measure. It had to be this specific because it might serve some other purpose if it was something else. So unannounced inspections were thought to be impossible. After we did it, and everyone became convinced that was the only way you would find anything in Iraq, even the attitude of the IAEA with regard to Iraq and unannounced inspections, changed. It was just not politically possible if, say, you would only do announced ones.

JS: In this same report to the Security Council, Blix indicated that intelligence was also an absolute essential.

DK: What, did he change his tune later?

JS: I am just wondering, because this was dependent to a certain extent on UNSCOM. This is a hypothetical question, based on your experience. Now we have a situation where in fact, the IAEA has returned to what you might call a normal inspection procedure, and there is no UNOMIC.

DK: Yet!

JS: So is it realistic to think that IAEA can maintain on its own a permanent monitoring system in Iraq?

DK: Not if you mean an effective permanent monitoring system. I mean it can be very much like the monitoring... most people have forgotten the largest on-site inspection program, semi-permanent, it was supposed to be for an unspecified time, was in the Rhineland between the two world wars, in which there were well over a thousand on-site inspectors. Now it was ineffective because the Allies, the French and the Brits, they knew what the Germans were doing, but their governments didn't want to comply...

JS: When the Germans remilitarized.

DK: That's right. Well the remilitarization started much more slowly, and the inspectors chose to only go where the Germans told them they could go. So you can have a permanent, but a false, not effective security. Blix was right in that report. Without intelligence or, if you prefer, the less politically explosive term in the UN, access to information, you're not going to be able to...

JS: He used the word "intelligence."

DK: He did in that report. He subsequently changed it to "information," which is politically correct, and I have no problem with it. Good intelligence is information.

JS: But so much was dependent on that that came basically through UNSCOM...

DK: Absolutely.

JS: ...that I just wondered.

DK: No, that was it, it came through UNSCOM, but it also came from member states. Later in the process, this division between UNSCOM and the IAEA and the perception that the IAEA was not as vigorous, rigorous as UNSCOM, led to a feeling, and I think it was based on reality, that in the latter stages not as much was given to the IAEA as to UNSCOM. That was a feeling in the early days, which I think was incorrect, but gradually there did become a feeling that IAEA just was not as dedicated to pursuing. There were a couple flaps. Zefferero made a few mistakes that turned a lot of people around, and this was after I left. I think there probably was some drying up. I worry now about whether UNMOVIC, as it's created, is going to get access to that sort of information. Blix, in his public statements at least, has spoken as if he's going to try to do it entirely on the resources of the UN.

JS: Yes, although I noticed...

[315 Battery on tape recorder causes microphone to quiet to the point recording imperceptible speech. Battery replaced at 320.]

JS: Now where were we?

DK: With regard to invoices...

JS: Right, from foreign companies.

DK: In every case that I personally know of, the direction actually came from national governments, who said, "Go talk to those companies, look at them." In the cases where we tried to approach the companies directly without going through a national government, the companies essentially told us they weren't going to cooperate.

JS: But this kind of information was useful to you when it got to the teams.

DK: It was extremely valuable.

JS: Because you could confront the Iraqis, right?

DK: Because often the Iraqis would say, first, if they didn't know you had that information, they would say they never had anything. If they thought you had some of it, they would say they had the amount they thought you knew about, and if you knew a different amount, you could confront them with that. So it was a constant cat and mouse game on that score, and it was very valuable to have real information.

JS: Now in these relatively early inspections that you were involved in, did this already involve some destruction or removal of nuclear fuel?



DK: In the early days, it was the identification of where the fuel was. The Iraqis, and I don't know whether it was brave or foolhardy, actually under attack had removed fuel. They had removed it without detection by the United States or its coalition partners. The U.S. had no idea where it was. The Iraqis were convinced; we convinced them of the necessity of taking us to where it was. They had moved it out to a field near to Tuwaitha, they had moved it, and it was stored literally in fifty-five gallon drums that they had managed to weld and fix in a way to store it—very unsafe, but to their credit, they had done it. So I was involved in the negotiations as to how we were going to get that out of the country. The Security Council, if you read 687, everyone was in favor of removing it, but if you actually talked to individual countries about whether they would like to take it into their own country, and this includes the United States, none of them wanted to have anything to do with it because of the domestic political issue of moving nuclear material into the country. And so pretty early on, it became clear that the only country that would respond to the issue of you can make money doing this, were the Russians. For the right amount of money, they'll take anything as far as I could tell. And so it became an issue there. The Brits and the French of the consortium tried to put up a deal, but it was outrageously expensive. The Russians would do it and they'd do it cheap, compared to what everyone else [offered]. Because everyone else had to struggle with environmental protection laws, and all of these issues that made it really... and commercially, the material was not valuable. In fact, it would have been difficult for commercial process to handle, so they had priced it fully. So we early on identified that.

The other things we destroyed while we were there were relatively small items during my inspections. We found a number of the centrifuge parts, which were highly machined material. We counted them, and photographed them, and brought them under control. There were a number that we actually destroyed, because we were afraid that we would lose control of them after we left. We put seals on them before we could move them, and so we scratched them and otherwise crunched them.

JS: Again, as far as I could tell in reading through very quickly these voluminous reports, actually while the nuclear inspections went on for a good many years, it struck me that a great deal of the information was obtained in the first four or five inspections.

DK: I think so.

JS: Was that your impression?

DK: That's my impression. I noticed one of the questions refers to the chicken farm raid. Now that was not nuclear material, nuclear data. That dealt with the biological weapons program. Some of the material was related, but principally it was the first... by the time you reached mid-1992, we'd had almost all the information we were going to get. And there were some significant exceptions, but the bulk of it...

JS: The last question I'll put to you this afternoon is the extent of destruction that you witnessed brought by Desert Storm. How effective was the bombing in terms of nuclear installations, at least?

DK: Not as effective as I had thought, and I think the reason for that is a lot of the facilities were not known to be nuclear. They were known to be suspicious sites, and so it was sort of a once-over quickly. The exception was Tuwaitha but Tuwaitha was a known nuclear site, was heavily bombed throughout the war. The destruction... the targets that were targeted were good, but there were other sites. Al-Atheer, which was a major site, was a real surprise. It had had an elaborate deception campaign run by the Iraqis, which made it look like it was still under construction when in fact it was not under construction. They did not even bomb the principal building because of this deception plan. The planners looked at it and said, "Ah, it's still under construction, not worth a bomb." So instead they bombed the cafeteria, and they bombed some of the storage buildings. Now what they hit, they destroyed, but they didn't do a significant amount of damage to the site. If it hadn't been for the inspections... and subsequently that site was blown up by the inspection teams, or the Iraqis under direction of the inspection teams, to be absolutely correct. That site could have easily been back in production. Tarmiya, which was the calutron plant, was heavily destroyed. It was a bit difficult at times to make a fine assessment, because the Iraqis had a habit, if they thought a site was going to be inspected, of often going and tearing down buildings that had not been bombed, but before the inspectors could get to them. They did this both at Tuwaitha, a major calutron building was destroyed not by the bombs, but by the Iraqis. And you

know this because we compared gun footage to afterwards. Same thing was true at Tarmiya, and was also true at a number of the other sites. But on the whole, it was not as devastating as I thought it would be.

JS: I'm putting words in your mouth now, but this would seem to lead to the conclusion that intrusive inspections are going to continue to be extremely important.

DK: I think so. I think absolutely true. The lesson I came out with is that although the military likes to think that they can destroy things, the fact is they are as dependent on intelligence as inspectors are on intelligence. You can't destroy what you haven't identified, and the lack of destruction in the Iraqi program was because it hadn't been associated with a nuclear program, and so it wasn't bombed. I think without intrusive inspections, without people on the ground who are free to move around—and it's not just being on the ground, it's that intrusiveness that's necessary—you're not going to be able to get it.

JS: I said final, but let me just add one more question. How would you characterize the competence of the people you were working with in the IAEA and on-site inspections?

DK: As in most groups, it varied from some people who were extremely competent, committed, hardworking, to others who were not as competent. And it really was less the competence issue. In some ways, you self-selected people. People who were afraid of

the danger... I had safeguards inspectors who I asked if they would join us to go to Iraq, who said they wouldn't, it was too dangerous. That's all right, that's a personal choice. Some people are happy with running risks, some aren't. The real issue was the difference of belief in the appropriateness of the mission. There were some inspectors and some IAEA officials, who thought we were unfairly targeting the Iraqis because after all, the Israelis had a nuclear program, what were we doing about that? And that's part of the international culture. You're dealing with people who are from all over the world. There were some who were extremely disturbed at what was viewed as a U.S.-led operation, the war, attacking a third world state and destroying it. It became more serious the longer the inspections were carried out.

I remember after the third inspection, when I was in New York to brief the Security Council. You know how small the elevators are in the Secretariat building? They're always designed so that if there are an Israeli and an Arab, they have to bump into each other, even if they don't have to talk! Well I was squeezed in one, and there was someone from UNHCR, I think it was, who recognized me and immediately lit into me for the deaths and destruction I was causing to Iraqi children. And you know, my reaction was, "Look, I've got a mission, I'm doing what I can." But I recognized that in the culture of the UN, and you know I'd spent my... my dissertation was written on the UN, virtually everything I'd published was about the UN. I'd spent most of my adult life in the UN culture—I knew it. It was that what we were doing was counter-cultural. Most of the people who were attracted to UN service were attracted either because it was a better job than they would ever get at home, and that was a few of them! Or, more widely, because of the mission—you believed in the goals, you wanted to improve the

world, you realized how much human suffering there was, and sanctions which were intimately associated with the inspection process, and the Iraqis used that against us. It meant that there were some people who were less than fully dedicated to what you were doing. You tried to keep those away as far, at least I tried to keep them as far away from the IAEA missions I was leading, but there were some around.

JS: I think that was true in the Secretariat in New York also.

DK: It just had to be. I argued, for example, I remember I argued with Ekéus, even a couple of years ago, as recently as that. I thought we should end the sanctions. I thought we should put an offer on the table that the Iraqis agreed to "X" and we'll end sanctions. If you don't agree to "X" we will commence military action up to a certain level, but we were not going to re-impose sanctions again. Everything I know about sanctions, and more what I know about the third world—I spent most of my life in the third world, running around on missions—is governments know how to manipulate sanctions or anything else to their own advantage. It's not going to hurt the party, or the officials, or the army. It will hurt the people who don't have access to it. It was within the first three months that I said, "Look, we've got to move as fast as we can," because I never thought we'd be politically able to keep sanctions on that as long as we have. And I really didn't think we should, because you get to the point where they're doing more damage.

There is no democracy, no possibility of a democracy without a middle-class. And the first people that are hurt—and in Iraq, I saw it—the first people who were hurt by sanctions were the unpolitical middle-class. And you destroy that, and all you do is

strengthen Saddam's hands. He knows how to deal with the rabble of the street— immobilize it. It's the middle-class that is the threat to someone like that. And sanctions are the enemy of the middle-class. I'm still troubled; I'm very conflicted because I understand that sanctions... when the U.S. and its allies decided that they were not willing to take significant military action again, all the inspectors ever had were sanctions. That's the only tool we had. And so you didn't want to give up that tool, but that was a very inelegant tool for what we were doing, and one that ultimately cut against, I think, political settlement. So that's off my chest. I am disturbed terribly by how Saddam has used sanctions to destroy his only political opposition.

JS: And certainly, insofar as the nuclear side is concerned, the work was, let's say, done, pretty much.

DK: It was done to the extent that we had taken the immediate prospects of a program away from him.

JS: Yes.

DK: Intrusive inspections have to continue because in the technical development of a nuclear program, the only choke-point is nuclear material. When we started, the Soviet Union existed as the Soviet Union, but with the collapse of the Soviet Union... and consequently, in 1981, when Saddam started his second phase of his nuclear program, he had to produce that material himself. In the 1990s and beyond, it became possible for

Saddam and anyone else to think they might buy that material out of a collapsed Russia, and hence, not have all the signatures of large plants and all. So you really needed very, actually you needed more intrusive inspections. We need more intrusive inspections now than when we ended the war, because you can't be sure. If you give someone material, they know how to make into a weapon.

JS: Thank you very much.

DK: Sure thing.