
EDWARD M. KENNEDY ORAL HISTORY PROJECT

# INTERVIEW 1 WITH ELLIS MOTTUR

October 17, 2006
Charlottesville, Virginia

**Interviewer**
Stephen F. Knott

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TRANSCRIPT

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**Mottur:** I think that first I ought to introduce myself and say how I became involved with the Kennedys.

**Knott:** That's a great place to start.

**Mottur:** This is chronological, but not entirely, because different episodes tie together in certain ways. I started out at Swarthmore College, thinking I'd be in math and science, but then switched in my last two years and wound up in history honors, with a political science minor and English minor. I realized that I loved science very much, and math particularly, but I could contribute more as an interlocutor between science and society than I ever could as a scientist, so I switched.

Then I went to Harvard Business School, where I studied management of research and technology. So I have a background in science and technology, but I'm not a scientist or an engineer. Then, after my military service, I had some industrial experience in the development and manufacture of transistors, an extremely highly technical process. It gave me first-hand experience at how research interrelates with development and production.

I had gotten my MBA [master of business administration degree] at Harvard Business School, and in 1960 was back there in the doctoral program. At the same time I was working for a consulting company, United Research, Inc., doing consulting for the Air Force, the defense industry, and the newly established space administration. NASA [National Aeronautics and Space Administration] had recently gotten started to conduct America's space programs. United Research was very closely allied with Harvard Business School and many of the professors worked with us as part-time consultants. One of the professors who worked very closely with me was Dan Fenn, who was a lecturer in Business-Government Relations.

**Knott:** Absolutely great guy.

**Mottur:** He's actually the godfather of my son, and probably my closest friend. I got to know Dan very well. In 1960, when Jack Kennedy started running for President, he naturally had many ties to Harvard. A Harvard law professor, Abe [Abram] Chayes, was asked to organize issue groups that would deal with various public policy issues and feed them into the campaign. Abe asked Dan if there were some people at Harvard Business School who could contribute. Dan recommended me, as a doctoral student, plus two professors.

The three of us went to lunch with Abe in the Harvard Business School Faculty Club. He turned first to one of the professors and said, "What's your specialty?" The professor said, "I do textile trade—trade in textiles," and Abe said, "Oh, great. Can you handle foreign trade for the campaign?" The professor said, "Oh no, no. I just do textiles. That's about it," so Abe said, "Well, OK; write us a paper on textile trade." He turned to the next fellow and said, "Well, what do you do?" The professor taught financial management, so Abe asked, "Can you handle policy with respect to the Federal Reserve?" The professor demurred, "No, no. I can just address the financial management of firms."

Well, I was a young doctoral student, somewhat brash and perhaps a little overconfident. So when I listened to how they had pulled back, I wasn't going to join them. So when Abe turned to me and said, "Now, what can you do?" I replied, "I can do defense and space." He seemed delighted and said, "Wow, that's great, except Stu [W. Stuart] Symington" —a Democratic U.S. Senator from Missouri— "is handling defense for us, but we don't have anybody for space." I said, "Great. I'll do the space program for Jack Kennedy."

I walked back from lunch and within an hour somebody hand-delivered me a letter from Abe Chayes, "This is to confirm your assignments . . ." and he laid out point, point, point: You'll have this done by such and such time and this other by such and such time, etc. I thought, *Wow, this Kennedy organization really works*. I had just had lunch and said I could do this and before I could digest lunch, I had all these specific assignments. I jumped into it, got on the telephone and started calling leading space scientists and others involved in the program, and said, "I'm Jack Kennedy's representative. We're putting together a group to recommend policy for the space program." And to those who wanted to join the effort, I gave them their assignments. That's how I started with the Kennedys, in the 1960 campaign.

During the Kennedy administration, I served at the National Science Foundation [NSF]. My first assignment was to design and manage a new program about how scientists and engineers communicate among themselves in the course of their research and development [R & D]. Then NSF established a Management Analysis Office, of which I was the first director. The mission of my office was to reorganize NSF, improve its management procedures, and computerize its information systems. I did that during the Kennedy and early [Lyndon B.] Johnson Administrations, and then left NSF to direct policy research at George Washington University [GWU] on technological innovation and technology assessment.

While I was at GWU, Bobby Kennedy declared his candidacy for President on March 13, 1968. So I immediately took a leave of absence from the university to organize and direct the National

Citizens Group of all the Scientists and Engineers for Robert F. Kennedy. It was particularly important in the California primary. My involvement in the 1968 campaign was much more extensive than my role in 1960, when I was also pursuing my doctorate and working at United Research. In 1968 I worked full-time at campaign headquarters from 7:00 am to 9:00 pm, seven days a week, and after arriving home was on the phone to California from 10:00 pm to 1:00 am most nights. I should mention one very poignant event that occurred in the campaign. I had a press release to announce the National Committee of Scientists and Engineers for Robert F. Kennedy. In those days, we mimeographed press releases, and I had a stack of mimeographs ready to be released to the press. The release date was June 6, 1968, the day Bobby died, so instead of being publicly released, it went into the RFK archives at the Kennedy Library. But the campaign's particular pertinence to this oral history is that is when I first met Ted Kennedy.

**Knott:** This is the first time you meet Ted Kennedy?

**Mottur:** Yes. That was in 1968. The campaign started in March and ended in June, so it was somewhere during that period. Ted was the chairman of Bobby's campaign. My first meeting with him was at a reception they held for the directors of all the citizen groups. In addition to my group, there were citizen groups on every conceivable constituency (doctors, lawyers, academicians, etc.) I took the opportunity to recommend to Ted that he move on a piece of legislation that was languishing in the Congress.

It was a restructuring of the National Science Foundation that had been pushed in the House of Representatives by Congressman Emilio Daddario. They had set up a special subcommittee in the Senate to deal with it because it didn't fall into any particular area, and Ted was made chairman of it. There had been hearings, but it wasn't a high priority. He was so involved as chairman of the campaign that he wasn't going to do much with it at that time. I felt that it was not only in the national interest, but that it also could be helpful to us in the California primary as well. I thought it would be very timely to do it. I made a case for that to him, and he immediately got on it. As a result of that, it went right through the Senate and was signed into law.

If I hadn't had that conversation with him at that reception, it certainly would never have become law that year, because once Bobby was assassinated, Ted, understandably, went into the depths of depression and was totally out of pocket. Maybe NSF would have been restructured at some point in the future, but it certainly wouldn't have happened at that time. It shows you how certain things occur in our system that historians may attribute to the inevitable tides of history, but which actually happened at that time only because of a coincidental quirk of fate.

That was my first interaction with Ted. I didn't have too much other interaction with him during the campaign. I mostly dealt with Ted [Theodore] Sorensen on the substantive issues. I dealt with an overall coordinator for all the citizen groups on administrative things.

**Knott:** Who was that overall coordinator?

**Mottur:** Walter Sohier. He had been the general counsel of NASA and was a close personal social friend of Bobby Kennedy's from New York. The way the Kennedy organization operates is on trust. You trust certain people, and if they assure you that you can trust someone else, you

do so. For example, in 1960 when Dan told Abe Chayes I could handle certain issues, Abe Chayes assumed he could rely on me. Similarly, when Bobby declared to run for President, I called Dan and told him I wanted to get involved and do what I could. He called Dave Hackett, one of Bobby's roommates at prep school, and said, "Dave, Ellis Mottur did the space program issues for us in 1960 and he wants to do scientist and engineers now." Dave said, "Fine, go to it." That's how I immediately got going on that.

Then all of a sudden, Walter Sohier appeared. Dave Hackett called me and told me that I ought to meet with Walter Sohier, that he was going to help out. I didn't know whether he was going to help me or I would be helping him. The Kennedy political organization is like that. It's not very hierarchically structured. Walter came over to my office at George Washington University. I told him my connection to the Kennedy system, and asked him, "What's your connection?" He said, "I'm just a very close personal friend of Bobby's," so I thought, *Well, I guess I'm helping him rather than him helping me*. That's how I found out who was running things. He was in charge of all the citizen groups, not just my area.

Prior to the restructuring of NSF that Ted pushed through, there was a director and deputy director who needed Senate confirmation. The new legislation created four assistant directors, who also had to get Senate confirmation, and it required continuing oversight of the NSF. Another important provision was that the National Science Board, which oversees all of NSF, would include people from industry. Before then, its membership was totally academic. That was a significant piece of legislation.

The Senate had established the Special Subcommittee for Ted just to consider the legislation. In 1969 it became a permanent Special Subcommittee on the National Science Foundation. That's what I dealt with. I coordinated with the Health Subcommittee, but I was never part of the Health Subcommittee. That law called for an annual budget authorization for the National Science Foundation. You had to review the budget of NSF. The President would send up a budget, then we in Congress would put our own bills in, then that subcommittee would hold hearings. Ted was appointed chairman of the subcommittee. I don't think the Health Subcommittee existed yet. I think that was formed a little bit later. Health was dealt with at the full committee level at that time.

So NSF was the first subcommittee Ted chaired where he had charge of dealing with an agency budget. He had no experience of how to go about an authorization hearing, and no one on his staff knew. So his legislative assistant at the time, [Kilbert] Dun Gifford, called me—I was still at GW [George Washington University]—and said, "We have to do this authorization process now because of that law you got us to pass. We don't know how to do that, and we don't have any budget or staff allocation for it. It will probably just take a few weekends or so. Would you be willing to do that for us?" I said, "Sure," not knowing what was entailed or involved in it. I launched into it as an unpaid consultant. People used to think the Kennedys tossed money around, but that wasn't how they got people. They got people because of what President Kennedy stood for and what Bobby stood for, and what Ted came to stand for. People wanted to participate and do their part. It was quite the contrary of tossing money around.

I became an unpaid consultant to spend, in Dun's words, a couple of weekends doing this. It turned out that—Well, let me back up. At GW, I was directing research projects on technological innovation and technology assessment; I wasn't teaching. I could do my work when I wanted to. So I started spending at least three days a week on Capitol Hill, week in and week out, not two weekends, doing this for NSF. I was working nights to do the writing and analysis for my job at GW. I did the work for Ted in his office. I didn't have a desk, but people were always moving around, so I'd just use someone else's desk while I was up there. An authorization process is very complex, and no one on his staff knew what you were supposed to do, so I had to go around the Senate and ask questions of other people and gradually find out what I was supposed to do.

**Knott:** I'm surprised that there was nobody on his staff—

**Mottur:** I'll tell you something. In Congress, there are certain repositories—the Parliamentarian for example has a lot of institutional knowledge, but the individual Senate offices are on their own. When somebody new gets elected and wanders in, they're ignorant on Senate procedures. The Kennedy School at Harvard gives them an orientation, but in terms of the nuts and bolts of what they have to do, none of them have that knowledge; they have learn on their own. There aren't handbooks. There isn't something that says, "This is how you do it." At each stage, I'd learn how to do that stage of the process, then I'd go around and ask until I found somebody who knew what to do next. I did it, and eventually other people on Kennedy's staff learned it, but it's an on-the-job learning process.

Although I had worked for Jack and Bobby Kennedy, being in Ted's office, where there were pictures of Kennedys everywhere you turned, was like being completely immersed in history. Ted, at that time, was much more glamorous than he is right now, much younger, much slimmer, much handsomer.

A couple of illustrations will help give you the feel for that. I was doing an NSF hearing for him, which is fairly technical and unexciting for most people. We were going over the NSF budget and talking about the need to fund basic research. These are all things that are close to *my* heart, but they're not exactly what would normally turn on the public. We were going to have this somewhat boring hearing. Yet every network had its TV cameras up, because this was Ted Kennedy doing it. They had them all, and the audience was packed. The room was packed with people and cameras and everything else. Toward the end of the hearing—it went on for maybe three hours or so—Ted had to go to do something else urgent, and Senator Claiborne Pell took over the hearing. The front two or three rows of the audience were filled with schoolgirls there on spring break, who were just there to see Ted Kennedy. The minute Ted Kennedy got up and walked out, all these girls stood and walked out the other door.

**Knott:** That must have made Claiborne Pell feel good.

**Mottur:** Then it got worse. The TV crews turned off their cameras and they started folding them up, but they didn't turn off the bright lights. The lights were shining in Pell's eyes, and he said to me, "Get those damn lights off." He was so furious. That gives you a little feel for what it was like being Ted Kennedy.

To give a few other instances of that: whenever I would walk with him through crowds or out in the street or to the Capitol from the Senate Building, tourists immediately surrounded him; they'd come swarming. "Can I get your autograph?" You couldn't walk anywhere; people would swarm around him.

This is crazy, but often—this didn't just happen once or twice, but during those years when I was working with him, frequently—I'd be in some setting and meet some woman, and she'd say, "Oh, you're an aide to Ted Kennedy. Can I touch you, so I can say I've touched somebody who touched Ted Kennedy?" That happened to me many times.

On another occasion, I had written a speech for him to give to the American Institute of Physics, a highly professional organization. Their director of public affairs was a professional woman, probably in her late thirties, a real professional. He gave the speech, a luncheon speech. They were seated at a podium, and she was seated on one side of him. It got a wonderful ovation; I always felt good when a speech I had drafted went over well. I was talking to her afterward and asked what she thought of the speech. She said, "Ellis, I didn't hear a word he said. He's so handsome." That kind of thing was going on all the time.

Let me tell you how his staff operated. At that point, in 1969, he had a very small staff compared to what he now has or has had, when the Democrats are in the majority. In terms of top people: they'd call him a chief of staff now, but in those days we called them administrative assistants, an AA. You had the AA, and you had a few legislative assistants. You had one person who handled Massachusetts matters, one who handled politics for him (who later became chairman of the Democratic Party, Paul Kirk). You had a press secretary. At that point, Ted was Whip of the Senate, the Assistant Majority Leader, which only lasted one two-year session.

**Knott:** Who was the AA at that time?

**Mottur:** When I first started with him, it was Dave Burke. Dave left somewhere during that first year or two, then Eddie Martin came down as his AA. Eddie was with him for quite some years. Eddie wanted to leave a number of times. But you can't leave Ted Kennedy when you're working for him when you're a key person. The first time he wanted to leave must have been when Ted's father died. There's always something happening. Here, his father passed away—"You can't leave me now"—or Teddy Junior [Edward M. Kennedy, Jr.] getting cancer. There was, of course, Chappaquiddick. It was one thing after another, so Eddie was there many years more than he really wanted to be.

There were these very few people. I was handling the science and technology issues for him, which is very specialized. I was the most specialized person on his staff. Of his key people, we all dealt directly with him. There was no hierarchy. This is quite different in other Senate offices. I was recently talking to a friend who was a top person for Senator Lloyd Bentsen, one of his top finance people, who dealt with tax policy. Everything he did went to the chief of staff for Lloyd Bentsen and had to be reviewed by him. From him it would go to Bentsen. Kennedy never operated that way. He wanted each person to deal directly with him. My work was never vetted through anyone else; it went straight to him. I would frequently give copies of it to other staff if I

thought it was relevant. It was up to me to decide if I wanted to give a copy to the AA or some other LA [legislative assistant]. It was very direct dealing.

He has a voracious appetite for information, just beyond anything. He wants to know all kinds of things. When I first started with him, I didn't give him enough information, because at Harvard Business School I had learned that executives are supposed to delegate things. And when it's delegated to you, you just do the job and don't bother the person you're working for. You just get things solved and you get it up to him, but Ted wanted to know everything. Although you would be dealing with him daily and talking to him many times, you also wrote him memos all day long. Each night, he had this—we called it "the bag," but it's actually a black attaché case, and it would be jammed, totally jammed, with papers and memos. He would go through those things and would write back in the margins, make his comments on them all. Incidentally, I have several thousand memos I wrote him over the years, which I'm eventually going to give to the Kennedy Library, with his comments on them. It's a real treasure trove.

He didn't have, at that point, a person who was *the* speechwriter. At that early period, if he were going to do some major national speech, he might have turned to Ted Sorensen or Arthur Schlesinger, Jr., but each of us wrote for our own area of expertise. I would write the speeches and floor or hearings statements in my area. I would write the press releases. There was a press secretary, but he didn't write routine press releases. He fended off the networks, who wanted Ted to be interviewed every Sunday. Most people in Congress would die to get some exposure. What *his* press secretary was doing was trying to ration the exposure, because people were trying to get him all the time. You did everything. You did the legislation; you dealt with the press. The press secretary, when Ted would do a big interview on TV or something, would deal with it, but otherwise, I would deal with the science, energy, and environment press.

I started out there as an unpaid consultant. I started as full-time staff in 1971, but from January 1969, it was my predominant activity. Luckily, GW didn't care when I did what I was doing there. With Ted I had a number of titles. I was scientific advisor, the title I would use in all my correspondence with the scientific community, but I was also staff director of the NSF Subcommittee, with only one secretary to assist me. Later on, when OTA, the Office of Technology Assessment, was created, I was technically the assistant director of OTA, but even then I was always dealing directly with and for Ted.

In dealing with Ted, if you were close to him and were effective at it, you had to have—this may sound strange—almost a form of extrasensory perception. You had to become so in tune with him that you could sense his thoughts—Eddie Martin, his AA for so many years, used to say that when he'd see Ted coming down the hall, at about 20 feet, he could tell just from Ted's expression what he was thinking at that point, what was going on, because he knew the totality of everything he was doing. You get to know him on such a deep emotional level that you can sense everything. The first instance of that with me was really funny. I think it was the first statement I wrote for him at the first NSF authorization hearing I ever did. After I had given him a draft the day before, I asked, "Well, how was it? Was it OK?" He said, "Well, Ellis. . . ." And he went like this with his hands [*motions*] and said, "It just needed. . . ." And he paused and made that motion. I don't know what the hell he meant, but I said, "Oh, you mean it just needed. . . ." and I made the same motion, and he said, "Yes." I then rewrote it and he said, "Yes, that's

what I meant." That's literally true: exactly what occurred. You had to get on the same wavelength with him.

**Knott:** Was part of it, though, because of the way—We've done a number of interviews with him and he speaks in a sometimes rapid-fire—

**Mottur:** Right.

**Knott:** You have to fill in the blanks here and there.

**Mottur:** Listen, the toughest job I had in all the years with him was correcting the [*Congressional*] *Record* after he had spoken, say, at a hearing. His mind jumps around so fast, so he doesn't say complete sentences. He starts saying something, and anyone who's really with him will know what he means before he finishes. Then he jumps to the next thought, without ever completing the first one. In those days, the stenographers were taking this down in shorthand. You'd get the transcript and it appeared to be total gibberish. It seemed to have no relation to English grammar. So you had to change it to make it convey the meaning he intended. And on the Senate floor—he's much more coherent now after all these years, but in those early years it took a lot of work to fill in the blanks in the *Record*. The main thing is how fast his mind goes. The Kennedys are all like that; the whole family is like that. They're peripatetic; they're full of energy and jumping around; they're hyperactive and it's one thing after another. To keep up with them, you have to intuit everything.

Let me talk a little about writing speeches and things for him. For many people up on Capitol Hill in politics, you can write a beautiful, eloquent speech for them and they'll just take it and deliver it. When I started writing for him, my own style of writing would have been more in an Adlai Stevenson style, where the eloquence is self-contained within the pattern of words. But with Ted, the eloquence doesn't come only from the words on the page. The eloquence comes from the way he connects with the audience. It's a very different thing.

His speeches read fine, but the real eloquence comes when he's giving them. He has a way of connecting with people; it's a different kind of eloquence. My point is, I could give him the most eloquent-sounding things on paper, and he wouldn't give them in a million years. The only way he'll give a speech is if you use the words he would use. In one of my very first speeches, I used the word "plummeting." He changed it to "plunging." It's *plunging* [smacks hand], it has real impact, where plummeting just sounds like it's a feather floating down to earth.

You have to use the kinds of words he would use, number one, but the other thing is, it has to be exactly in his cadence. It has to be the exact rhythm. In those days, we didn't have computers; I would compose speeches on a typewriter. I would type a line, then I would pause, with my eyes closed, and I could hear his voice in my head. If it didn't sound right, I changed the line. It had to sound just like him, because that's the only way he would use it.

**Knott:** Can I stop you here for a second?

**Mottur:** Yes.

**Knott:** It's not clear to me how you ended up writing speeches for him.

**Mottur:** I was trying to make that point. When you dealt with any area, there wasn't a division of labor. I did everything related to that area including the speech writing.

**Knott:** You did it all, OK.

**Mottur:** Any speech that related to science or technology. I also, later on, handled energy and the environment. It was very narrow compared to some of the other staff, but it was still pretty broad. I also did industrial innovation. There was a big movement years ago—and I'll get into it more later—the world future movement. I wrote all the futurist material.

It's different now, what happens in his operation. Carey Parker, who started with Ted the same time I did in January 1969, and is still there, is the most—I don't know if you've done an interview with him yet.

**Knott:** We talk to him quite often. In fact, he knew you were coming down for this.

**Mottur:** Yes. I had mentioned to Carey that I was.

Carey is the most—I can't praise that guy enough. He is incredible. You know that Omar Khayyam verse "The Moving Finger writes: and, having writ / Moves on"? Well, Carey just sits there writing in longhand on big, yellow pages; all day long, his hand just keeps moving along. He writes this incredible stuff. The way Ted operates now, Carey goes over all the speeches that everybody in the office writes, so it's different from the years when I was doing this. the exception is if it's a major political speech, maybe Bob Shrum will come and write it.

In those days, we each did our own thing—I was editor in chief of the literary magazine at college; writing is one of my skills. If Ted had a staff person who was poor at it, then somehow they'd find a way of compensating for him, but I wrote hundreds of speeches. Many of them were just floor or hearings statements—but a lot were speeches—and all of them had to be exactly in his kind of words and cadence.

I'll give you another instance of how the Kennedy people operate. I didn't have a desk when I started out. I was just a consultant. The time came to write the committee report for the NSF authorization. After you'd had your hearings and you'd reflected on the bill, then you'd write a committee report, which would go to the full Senate for its consideration and vote. I had finally learned what I was supposed to do on that and I had come in to write it. When writing a committee report in the Senate, I'd want to look at what the House wrote, I'd look at the testimony, and I'd have a lot of documents to look at to write that report.

I didn't have a desk, so I would set up all my stuff at someone else's desk. I'd need to set all these things out, then I'd be pulling out different documents and weaving it together. I'd get everything all set up at someone's desk, then the person would come in and say he needed his desk, so I had to push everything together and try another desk. I'd set everything up on this

other desk, then another person would come in, and I had to push it again. After two or three times of doing that, I wanted to get that report done and didn't want to waste any more time shifting desks.

The other thing with the Kennedys is, when something needs to be done, it should be done immediately. When there's something you want to get done, you never put it off, you just do it right away. Here I was without a desk and I had to get that report done.

Oh, I first have to tell you about the office. I don't know if you've visited the Senate offices. Do you know those rooms?

**Knott:** Yes.

**Mottur:** Each of the rooms, the room Ted's in and the room that's next to him, are about 10 feet wide and about 30 feet long. The room where I did my work was where the legislative assistants sat next to his office. It was a little different from today, but it was an adjacent room with two doors on each side leading into his room. In the "leg. room," as we called it, there were eight desks: four professionals and four secretarial workers on typewriters. There were folding chairs and file cabinets in this room—this is 10 feet by 30. Eight desks with all these folding chairs and there'd be desks perpendicular to other desks. To walk through that room, you had to weave around and turn sideways as you walked. You couldn't walk frontally at certain parts, because it was so crowded. You had to see the scene to believe it. Ted would frequently come through that room to get into his room, which was adjacent.

What I did, after I found two or three desks I couldn't use, I spread all the papers out on the floor, lay down on floor in between two desks, and wrote the committee report. Ted walked into the room while I was doing this and said, "What's going on here?" I looked up and said, "I'm just doing the committee report." He said, "Oh, OK, keep on." He stepped over me and walked into his office. That's how the Kennedy organization worked; when you had to get something done, you found a way to do it and you did it.

Also around that time he had asked me to accomplish something. And to do it, I had to check with many members of the scientific community. I talked to various people, and they all told me it wasn't feasible or didn't make sense and couldn't be done. I came back to him and said I had talked to all these people and they pointed out that it wasn't feasible. He said, "Ellis, let me tell you something. I can get any number of bright graduates from Harvard to work for me. But I don't want just bright Harvard graduates. I want ones who don't come and tell me, when I want something done, why it can't be done. I want ones who can figure out how to do it. That's what your job is." That was the last time I told him something couldn't be done.

**Knott:** I'm sorry, did you say what the particular thing was?

**Mottur:** No. I can't quite remember it now. It wasn't a major thing, but it was something he had wanted. I'll never forget him saying that to me. That's what you do, you figure out how to do it. You can be the brightest guy in the world, but—There will be other stories I'll tell you later that illustrate that.

**Peters:** Excuse me, could I ask you something about this earlier period here?

**Mottur:** Yes.

**Peters:** You mentioned that at the committee meeting for NSF restructuring it wasn't a hot issue on its own. Since then, it seems like science and technology issues have become more popular, but Kennedy was right in there at the very beginning.

**Mottur:** Right.

**Peters:** He had a special science advisor. He had this pool of talent that he drew on up in Massachusetts. Can you talk a little bit about why he was one of these early pioneers in this issue area?

**Mottur:** I was going to get to that, because I think that's very important. When he was given that special subcommittee, there was no particular reason. It was just that the chairman of the full committee at that time, I think Lister Hill from Alabama—Ted was a young Senator. It was a case of "Somebody has to handle this; Ted, would you like to do it?" That's how he got in. Then I appeared on the scene, where I had an intense interest in all this and started to develop a close relationship with him. But his first getting into it was by chance that he got assigned it. As I pointed out before, that restructuring never would have occurred if I hadn't talked to him about it during Bobby's campaign. Then his interest in it really developed.

I want to quickly identify some of the major accomplishments we had. NSF, at the time he started with it, before that restructuring, had been a very esoteric, academic organization. It wasn't like a government agency. They were like academic departments, each division in the NSF. They would do their work with peer review. It was mostly basic research and science education at the graduate level. We kept pushing the basic research, which is, of course, the seed corn of scientific knowledge. You have to do that; basic research and education are crucial. But we added to it Research Applied to National Needs (the RANN Program.) That was the beginning of getting NSF to do special programs that would look at *applied* knowledge, not just basic knowledge. That was a very hard transformation for NSF. It was wrenching to the agency, but it was Kennedy's push that made it happen.

As he began to get into this, he began to understand the potential of what science and technology could do for people. His orientation is always, What can you do for human beings to make their lives better, to give them better lives somehow? He had not been an outstanding science student in his youth, so he didn't have that much appreciation of science when he started, but as he got into it—I love science and I know what it can do. A phrase that was in many of his speeches was "science's performance nowhere matches its potential," meaning the potential for helping people and helping society. He pushed NSF to do that.

He also tremendously strengthened the social sciences at NSF, which was a very weak area during the years before I got on the staff. We also started a special program so historically black colleges would get special grants to help them. We started the minority R&D [research and

development] set-asides, so that companies that were founded by or had significant minority ownership would get a certain percentage of all NSF's research money. We expanded NSF's ocean research very much. Each year, we'd try to put money in to build another oceanographic vessel. We didn't get them every year, but we did a lot of that. That was before the National Oceans and Atmospheric Research Administration [NOAA] was established.

Another thing we did that was significant was to put a tremendous emphasis on alternative energy research. When we started, the total solar energy research budget of the United States government was $500,000 a year in the NSF budget. There was no Department of Energy at that time. We had spent tens of billions of dollars on nuclear energy since the Second World War, and they were spending $500,000 a year on solar energy. In the NSF authorization bill, the administration would send up the bill with its $500,000; I'd strike it out and stick in $10 million. That's what we'd always put in. You know, $10 million doesn't sound like much, but it's still a 20-fold increase over $500,000. We started to push on wind energy and geothermal energy, too. If the government had really—Jimmy Carter did a lot of that, then [Ronald] Reagan knocked it all out. If we had been doing more of that—Now, they're beginning to realize, again, how important that is. Kennedy deserves the credit for getting that going. It was from such a small base, and we started to make it visible.

The other important thing about NSF, it was totally bipartisan. He was the chairman of the subcommittee. We had, on the subcommittee, the ranking minority Republican, Peter Dominick of Colorado, who was a staunch conservative, yet we worked together totally. It was a bipartisan thing. The two of them couldn't have disagreed more on fundamentals, but he worked wonderfully with Dominick, and that extended to the staff level. I would be invited to the parties of Dominick's staff, social parties. Now, in the United States Senate, if you ever get invited to a party on the other side, you'd have a taster to test the drinks to make sure you weren't being poisoned. [*laughs*] It was a different world. The point is, Ted always worked constructively with the other side. All the NSF work was very bipartisan.

In those years after I was fully on staff, assassination threats were pervasive. We would get at least one assassination threat a week. Some of them were very crazy things, but about once a month it was serious enough that you'd have to bring the FBI [Federal Bureau of Investigation] in. That was constant. It was a constant drumbeat of assassination threats. Little things helped me realize how much he was always aware of that. I remember in one hearing—I'd sit behind him in these hearings. I remember I had a pad I was writing on furiously, and I ripped off the sheet that I had just finished to get to the next sheet, and he just went like that [*stiffens*]—his back arching up—because that rip behind his back startled him. He had this constant awareness that there were people out there who would like to do to him what was done to his brothers.

He lived on Chain Bridge Road, 636 Chain Bridge Road, and we used to go in and out of his house all the time. We'd come to brief him in the mornings. He'd play tennis around 6:00 and we'd be in briefing him at 7:00 in the morning, then drive in to work with him. The door was always unlocked. He didn't have any security on that place; we'd be in and out. That was one of the reasons why Joan [Kennedy] looked forward to the summers on the Cape. She had no privacy in that place. It was a big house, but still, staff members were wandering in it all the time.

One Saturday I was writing some speech that I wanted him to look over on Sunday because he was going to give it on Monday. I finished the speech about 8:00 Saturday night. I was about to call, but I thought, *Oh, I don't want to bother him.* I had this image that the Kennedys on Saturday night would always be doing something. I didn't want to bother him and assumed the doors would be open, as they always were. I drove from Capitol Hill down into McLean. I got to the house and it was dark. I figured they were in the back somewhere, so I went up to the front door and tried to open it, what I normally did, and it was locked. I thought, *Well, I'll go around to the servant's entrance*. That was locked. Oh boy, here I've driven out with this speech and everything's locked. I was walking back past the front door to go to my car when the door opened and Ted came out. He said, "Oh, it's you, Ellis." I said yes. He said, "You should have called." I said, "I didn't want to bother you. I just thought I'd leave off the speech." He said, "Joan was so scared. She thought someone was trying to break in."

But normally, during the day, we would just go in and out of the place. In those days he didn't have security. He should have, but he didn't. when he was going to deliver a speech, I'd go up, say it was a stage, I'd go up before he got there and look around the curtains, not that I knew what I was doing, but I would try to make sure it was safe. It was a very conscious thing. He always had tremendous personal courage in the midst of all that.

In the early years in Boston, when busing was occurring, the Irish in Boston didn't like busing very much. Of course, they were all Kennedy fans, but they were mad as hell about the busing. He was going up there for something and the police chief in Boston called the office and asked that he not come or just not come to that event, that there were mobs all over the place and they couldn't guarantee his safety. Ted said, "That's ridiculous. You're telling me not to go to Boston?" He got on the plane and went up there. I wasn't with him, but Eddie recounted it afterward. He got in this mob; they were pushing his car and doing things, but there was no way he would ever back off from a situation like that. He felt you had to confront the people directly. He had tremendous personal courage.

One afternoon right around lunchtime I was still in the office; nobody else was there except the receptionist, Melody Miller. I was in a room nearby when Melody rushed back and said, "Ellis, come on out. I think this guy has a gun." She rushed back out and I rushed out, and there was a guy standing there. I immediately stuck my hand out and said, "Hi, I'm Ellis Mottur. Can I help you?" I figured if I'm holding his hand, he can't shoot me unless he's left-handed. I shook hands with him and said, "Let's sit down and talk." I sat down next to him and it looked like he had something bulky in his jacket pocket. I couldn't tell for sure. He said he wanted to see Senator Kennedy. I said, "He's not here right now. Can I help you?" He said, "Well, let me tell you what it is. The Mafia is trying to kill me."

That's why he was carrying a gun, to protect himself. In those days, we didn't have metal detectors in the Senate. "The Mafia is trying to kill me and I have all this information on them. I want to tell Senator Kennedy because if I tell him, he'll be able to expose them. I have this valuable information." He was rational in the way he was talking, so maybe he was totally lunatic, but on the other hand, maybe it was totally true. I had no way of knowing, so I was talking to him and trying to figure out what to do. Because of all the threats, Melody used to

have a button under her desk, a silent buzzer that could alert the police. She had buzzed while I was talking with him.

Two plainclothes policemen came in the doorway. They were dressed in suits, but you could always tell how Secret Service and plainclothes cops looked. I saw them there and said to this guy—There was a Senator Harold Hughes from Iowa, and he was chairman of the Subcommittee on Organized Crime—"You know, since Kennedy is not here and Senator Harold Hughes chairs this Subcommittee on Organized Crime, I think if you told it to him, he could do something about it." I said to the two cops, "Hey, do you guys happen to be going near Senator Hughes's office?" They said, "Yes, we're going that way." I said, "Why don't you show him how to get there?" To this day, I don't know if it was a true thing or not, but this kind of stuff was always going on.

In 1970, there were tremendous cutbacks in defense and space research and development, and the DOD [Department of Defense] budget was starting to shift. In Vietnam, they wanted to build up actual ground troops, but they were cutting back on the type of esoteric weapons systems that gave employment to scientists, engineers, and technicians, so there was tremendous scientific and technical unemployment going on in the country. When I say tremendous, it was tremendous for the scientists and engineers. It wouldn't be considered tremendous to black youth, but among the scientific and engineering community, it was really something. They were very upset about it.

The '70 election was coming up and, as you know, Chappaquiddick occurred in August of '69. I wasn't there and I'm not going to get into that, although I knew all the people who were there and I've talked to them all, and know there was nothing nefarious going on there. Anyway, the 1970 election was critical for Ted Kennedy because, after Chappaquiddick, there was a question as to whether he would retain his seat and what would happen to his career. It was a crucial thing, and coincided with this tremendous unemployment of scientists and engineers.

Massachusetts was a highly technical place. Route 128 had all these research and development places and the universities had many research projects for the Defense Department and NASA. I calculated that when you took account of the actual scientists, engineers, their technicians, their support staff, their families—you were talking about 250,000 voters when you looked at the total network of it. It was a very substantial group and they were upset and scared about their livelihood.

At that point, Ted had already begun to realize the tremendous potential of science and technology for helping people. Now he also was facing this reelection and the scientists and engineers were a very highly educated group. Those who were more upset about Chappaquiddick were more-educated people, in general. It was a double whammy in a sense, and crucial that he did something for that constituency.

While serving as a consultant to him, at George Washington University, I was directing research under grants from the Arms Control Agency and the National Bureau of Standards, NASA, and the National Science Foundation. I was doing research on defense conversion, so I was an authority on it. He asked me to draft legislation that would address that problem. I wrote—I think

it was called the Conversion, Research, Education, and Assistance Act of 1970. It never was enacted, but it proposed a major set of programs.

To deal with conversion, there were two things you had to do. On the one hand, you had to do something for the individuals in the communities that were affected. You had to give the communities some programs that would help them adjust, and you had to give the individuals retraining, so they could take their basic skills and apply them to other areas. At the same time that you did that, dealing with the supply in a way, you had to look at the demand. You had to do something in the civilian sector to build up the demand for their skills, the things for which you would be retraining them. We developed a panoply of programs in that bill, which became one of the centerpieces of his campaign in 1970. I was very deeply involved in that. The House picked it up, so there were hearings there and in the Senate. We worked on that for years, and it evolved eventually into a different piece of legislation.

I'll give another illustration of how the Kennedy system operated. I was going up to Lexington, Massachusetts, to give a speech during the campaign to a bunch of scientists and engineers for Ted. There had been a snowstorm. The head of his Boston office was this fellow Jim King, who later was Jimmy Carter's top advance person and then director of the White House Office of Personnel under Jimmy Carter. Jim was head of our Boston office and took me in his car, a ramshackle old thing, to this hall where I was going to give this speech.

When we got to the parking lot, it was mobbed. There was no space for his car, so he blocked some other cars. I said, "Gee, Jimmy, you're blocking a car," and he said, "Oh, that's all right, that's why I drive an old car. I don't care what they do to it." There was high snow all around. They had shoveled a pathway to get to the door, but it was at right angles. You had to go this way, then take a right-angle turn and go that way. Jim is a big, burly Irishman. He must be at least 6′3″. He just walked through this big snowdrift that was up to here [*motions*]. He didn't do that [*motions at right angles*]; he walked straight through the snow. Luckily, I'm a small guy, so I could follow in his footsteps without getting full of snow. That's how I learned how advance people work in campaigns, but it's also the Kennedy spirit. When you have to go somewhere, you take the straightest line. You don't detour because it's a little more comfortable. I learned a lot from that one walk in the snow to give that speech.

During 1970 I was spending virtually all my days in Kennedy's office, and all my nights on the university work. In 1971, Ted finally got the full committee to give him a budget so he could hire me full time, and I could actually get paid for what I was doing.

**Knott:** You were not getting paid prior to this?

**Mottur:** For none of this, no.

**Knott:** A labor of love.

**Mottur:** It was. Well, it is love. People would work their way into his staff—work on campaigns, then intern for no pay. They'd give the person some kind of a pittance so they could survive for a little bit. If they stuck with it and were good, then they became staff employees. I

wasn't doing it for that reason. I was already an established professional then, but I wanted to do these things. I loved the Kennedys. I became a paid, full-time staff person in 1971, with the title of scientific advisor.

I was also staff director of the NSF subcommittee, and I also served as a legislative assistant on energy and environment issues. I never had a special subcommittee room or anything. The Health Subcommittee, with which I would cooperate on certain things, was off in another building. I sat in the room with the other legislative assistants. I was a legislative assistant at the same time as I was the staff director and the science advisor.

My desk was right in front of the door that Ted walked through to get into his own office, and the doors were always open. I'd hear him on the phone. I'd hear him talking to Joan. I'd hear him telling stories to his children on the phone. Talking with his mother was most interesting. He'd always say, "Yes, Mother. Yes, Mother. Definitely. Yes, Mother." He snapped to when she got on the phone. It was really fascinating. We were in close quarters in that room with the eight desks in it.

To give another illustration of his decision-making, one morning the *Washington Post* had a story in it about something that was going on in the University of Cincinnati Hospital. It said that doctors in this hospital were taking terminally ill, illiterate cancer patients and instead of focusing radiation on their tumors, were blasting their whole bodies with radiation. The results they were getting, they were submitting to the Defense Department under a grant from the Defense Department to learn about what would happen to soldiers if they were out in an area where they got irradiated totally. Can you believe that?

I rushed into the office and wrote a press release from Kennedy, announcing an investigation of this. This was an explosive issue, so I took the press release to his press secretary and let him read it, asked him what he thought. He said yes. Then I took it to his AA. Many things I would never have gone to the trouble of going to the AA, but I showed it to him and he agreed. I then wanted to show it to Ted.

Incidentally, the use of names: I didn't call him Ted during those years. I called him Ted during Bobby's campaign, when I met him, because I was running the Scientists and Engineers Citizen Group. Once I got on Ted's staff, I started calling him Senator. When I addressed a memo to him, I always used, "To EMK." We had JFK, RFK, and EMK. I always think of him as EMK. I stopped calling him Ted, but the first time I left his staff, he got me back to calling him Ted again. In this interview, I'm referring to him the way I think of him now, but at the time I called him Senator.

Anyway, I wanted him to approve this press release. He was sitting in his office with Henry Kissinger. I don't know what they were talking about, but it was important, I guess. This was 1971, so Kissinger wasn't Secretary of State; he was National Security Advisor. Ted's secretary was Angelique [Voutselas Lee], and I was standing at Angelique's desk, wanting to get in to him.

Fortunately, a phone call came for him for which she had to interrupt him with Kissinger. He didn't want to talk to whoever it was, in front of Kissinger, so he came out of his room, closed the door behind him, then stood by Angelique's desk to take this phone call. While he was talking to that person, I shoved the press release on her desk in front of him. On the top of the press release, I had written, "Eddie and Dick [Drayne]," the press secretary, "and I think this should be issued immediately," so he knew I had gotten their concurrence. He read the press release while he was listening to this other person, then looked at me and nodded affirmatively. We issued the press release and started a major investigation of this hospital. That shows a little about the way he was able to decide things.

I'll digress on this, because of an incident during the [Michael] Dukakis campaign. I was running a segment of Dukakis's campaign in California—dealing with the high tech constituency. The president of McDonnell Douglas—the company hadn't merged with Boeing yet—told me he was for Dukakis but couldn't publicly come out and do it with his board of directors, but he said we could use this huge hangar in Huntington Beach, California. They had a 40-foot mockup of the as yet unbuilt Space Station, which NASA is still completing construction on. Dukakis had already decided that he was going to support building of the Space Station. Lloyd Bentsen, who was running for Vice President with him, was a big pusher of it. Dukakis had approved a ten-page, single-spaced statement on space and the Space Station. Dukakis was an absolute nitpicker; he had gone through this whole thing in fine detail and had approved the actual statement.

Meanwhile, the CEO of McDonnell Douglas said to me, "I have this hangar, he can come and give his speech, announcing his approval of the Space Station here in California." The California constituency is hundreds and hundreds of thousands of scientists and engineers tied in with the space program. I called Boston and said, "I have this great venue for Dukakis. When he comes here—standing in front of the 40-foot mockup of the Space Station—every network, every camera will be on him. He can make this announcement, and it will be crucial in California." The *Challenger* space shuttle had crashed a couple of years previously and the first shuttle flight since then was about to go up in ten days, so I said, "He has to do the speech in the next ten days, before it goes up, so it doesn't look as if he's just climbing on the bandwagon after a successful flight, and I have this incredible location for him." They said, "He has other things on his schedule." I said, "Change it. This is handing him tens of thousands of votes in California. Do it." This went on and on.

The last conversation I had on it was with an aide in Dukakis's campaign plane, Jim Steinberg, Deputy National Security Advisor in [William Jefferson] Clinton's second term and now dean of the LBJ [Lyndon Baines Johnson] public policy school in Texas. I said to Jim, "He has to do this. It's crazy not to." He said, "Ellis, this campaign is like a huge ocean liner. It turns very, very slowly." Well, Dukakis never came and gave the speech, meanwhile Ted—it was a different thing, but Ted could make the decision to launch that investigation by reading that memo while on the phone. That was the difference between two political leaders.

**Knott:** One was very decisive, yes.

**Mottur:** I was at college with Mike Dukakis. I love him and he's a wonderful guy, but getting a decision out of him during the campaign was like getting a treaty out of the State Department. It illustrates Ted's decisiveness by contrast.

I then went out to Cincinnati with a doctor on Ted's staff. All the news people called me and asked if we were going to subpoena the hospital records. I said, "No, we're not going to subpoena anything. We just want to talk to people, get cooperation, and work together on this; we're definitely not going to subpoena anything." They said, "Well, can't you subpoena everything?" I said, "Look, we don't intend to subpoena anything." They said, "Don't you have the *power* to subpoena?" I said, "Any Senate committee has the power, sure we have the power, but we're not planning to subpoena anything." The next morning, all the headlines in the two Cincinnati papers were "Kennedy Aide Threatens Subpoenas." That was my real education on dealing with press people.

The Cincinnati doctor who was doing this—I had conclusive documentary evidence—definitely had contracts with the Defense Department and never wrote any scientific papers on it. It was not for scientific research, but just for the Defense Department and was total baloney. The patients they were doing it to were illiterate; they didn't know they were being used as guinea pigs. It was terrible. That doctor, Dr. [Eugene] Sanger, happened to be the doctor who treated all of Senator Bob Taft, Jr.'s relatives for cancer, so Senator Taft had a very close personal relationship with that doctor and just loved him. I don't know what the doctor told him, but Taft went bonkers on this thing. He was enraged that Kennedy was telling all these supposed lies. We still had never made any conclusory statements. We were just talking about doing the investigation. But Taft felt we were unjustly maligning his friend, Dr. Sanger.

On our staff at that time, certain of us had authority to sign Kennedy's name. I can't remember what the particular letter was, but I wrote a letter from Ted to Senator Taft. I wanted to be very careful on it. Ted was out of town. I went to Taft's AA and I showed him the letter before sending it, and asked, "Do you think this will be all right? I don't want to say anything that's offensive." He read it and said, "Oh yes, I don't think Senator Taft will mind that." I had Kennedy's signature put on the letter and it went to Senator Taft.

Senator Taft's AA either was misleading me deliberately or didn't have the same understanding of Taft's mind that I had of Kennedy's. Whatever it was, Taft blew his stack when he got that letter, and Ted was out of town. Ted came back, and I hadn't had time to brief him. He didn't even know about the letter, he had no inkling of what was coming. We were on the Senate floor and Taft started castigating Kennedy, verging on the kind of language not permitted in the Senate—He didn't actually say, "You're a liar," but it was tantamount to that. It was totally unfounded, what he was saying, but Taft believed it. Taft had been revved up by this doctor, so he tore into Kennedy, and Kennedy was standing there without being forewarned.

When Taft finished, Kennedy took me outside the chamber and we walked off into some corner—you know there are all these marble pillars in that ornate building—and he started screaming at me. He has this booming voice and I thought it would be like Samson bringing down the temple. I could just see the building collapsing. For about ten minutes, he tore into me, then finally he got out of breath. He had vented everything he could possibly say. I was just

standing there nodding, because I knew—When you're under the pressure that that guy works under, you have to let off steam sometimes. I didn't blame him for being upset. He finished his yelling and I was standing there nodding my head. Then he said, "Now Ellis, I don't want to inhibit your initiative, but in the future, please after you write a letter or do something like that, just let me know, please." That was all he ever said about it. I think this was a perfect illustration of how much he values staff who think for themselves and take the initiative, even though he was to suffer the consequences.

**Knott:** Was that your worst moment with him, would you say, or most unpleasant moment?

**Mottur:** I didn't take it too unpleasantly, because I knew he was going to scream. I knew it was fully justified for him. There were other times we had vigorous arguments on things. I don't know if I should get into that.

**Knott:** Go ahead. You control this transcript. What you say in this room stays in this room.

**Mottur:** I don't know if I should leave this in the transcript, but this one gives you a real insight into our relationship. Well, Eddie and I were in his office—several years after the Taft episode—and I was arguing about OTA with him vigorously. He didn't know the background of the issue or didn't understand what I was attempting to convey or I wasn't expressing it well enough or whatever. I just wasn't getting across to him. He wanted me to get out of his hair, and I kept going on, vehemently arguing my points.

He got up and started to walk to the door where Angelique sat. Eddie's desk was in the adjacent room, and usually there were ten people or so standing in that room, trying to leave messages or get on his schedule. He figured that I'd have to shut up if he kept walking me out into the room. He, I, and Eddie got into the doorway; it was open and all these people are right there. At that point he realized what I had been driving at and said, "Well, why didn't you say that in the first place?" And I retorted, "Why the hell didn't you read the [expletive deleted] memo?" I had made the case in the memo, and he apparently hadn't gotten to it. Well, he was understandably furious, because he hadn't read the memo. I think he wanted to throttle me on the spot, but now we were in front of all these people. One of the people standing there was his nephew, Christopher Lawford, Peter Lawford's son, who was, at that time, about 16 and was interning in Kennedy's office. Christopher was very tall. Ted walked over to him and grabbed Chris, and started shaking his fury out on him. So I burst out laughing and said, "Look, if you want to, kill *me*. Don't take it out on poor Chris," and then Ted started laughing as well.

But that's the kind of relationship we had. I never felt bad if he blew up at me because I have deep loyalty to him and the Kennedy family. Whatever I was doing, I was always trying to do what I thought was the right thing for him, and if he wanted to scream at me, he could scream all he wanted. Working with him was not a traditional work situation; it was more like being part of an extended family.

That gives you a feel for the kind of relationship. Not everybody on his staff was quite like that. There are a few close people to him; Jimmy Flug was always like that. Jimmy would have these violent arguments with him, and they would just go on and on. Carey doesn't argue with him

much, but quietly makes his points and gets them across. Carey's so wonderful at it that he doesn't have to argue, he just gets it across more quietly. On his staff now, people are so much in awe of him and there are different levels and hierarchies, and most things have to go through Carey. It's different now.

**Knott:** So you weren't afraid to speak up to him. Is that fair?

**Mottur:** Boy, no way.

Another time, we were trying to get space for OTA and [Ernest F.] Fritz Hollings, Senator Hollings from South Carolina, wanted to purchase a particular new building for the Senate. There was a new building built between Union Station and the Congress, and he wanted to buy that building for use for the Senate. Hollings was the chairman of the Committee on Legislative Appropriations, which controlled the buildings. Kennedy had agreed to support Hollings in the vote for that.

When the vote came up, I was on vacation and wasn't there, although I was the one handling the issue for him. He had made the commitment to Hollings that he would support him, but it wasn't a prominent issue and Ted had forgotten that he had made the commitment, and I wasn't there to remind him. To top it off, as he walked over to make the vote, John Culver of Iowa, who was vehemently opposed to getting the building for some reason and who was Teddy's friend from their days together on the football team at Harvard, was walking over with him. He was telling him all the reasons why he should vote against the building. Kennedy listened to Culver and voted against it, and Hollings was furious. He had a commitment to get the vote. It wasn't Ted's fault, he just forgot. He was dealing with a lot of stuff, I wasn't there to remind him, and no one else would have reminded him.

Fritz Hollings, first of all, was a very good friend of Kennedy's, but Hollings, whom I love and for whom my son worked before he left the Senate—I don't mean this any way negative to Fritz Hollings but—he can be one tough character. If you cross him and say you're going to do something and you don't—in the way the United States Senate operates, you then retaliate. There was no way that he wasn't going to do something in retaliation.

When I got back from vacation and saw what had happened, I was mortified, and told Eddie we had to go in and tell Ted that Hollings was going to try to do something and he had to be aware of it. Eddie is as close to Ted as anyone could be, but he didn't feel that we had to tell him. I said we had to. He again said no, but I said, "Well, I'm going in. You can come with me if you want. If not, I'm telling him alone." So Eddie and I walked into the room and I told Ted that Hollings was going to be furious at him on this. He exploded, because he had forgotten all about it, "How did that commitment get made? I don't remember that. I don't remember making the commitment." It was in some memo and he had just forgotten it. He was screaming his head off at me and I said, "Look, you want to fire me, fire me, but I want you to know that Fritz Hollings feels that way so you can do something about it." Of course he did; he went and talked to Hollings and patched it up. But that's how I felt. I was never afraid to—All that mattered to me what was good for him. That time in particular, even Eddie didn't want to go, but I dragged him into it.

Following up on that Cincinnati issue, we did get an amendment through in 1972. Of all the things I ever helped get through in the Senate, this mattered most to me of anything, and it was a single sentence on one piece of legislation. It was a sentence on the Defense Appropriations Act of 1972, and was a follow-up to work we were doing on not only Cincinnati, but also on other human experimentation. That single sentence prohibited the use of any defense funds for any experimentation involving human beings, unless they had volunteered and were fully informed of the possible adverse effects. It was the first time in American legislation that there was a law passed that affected the guidelines for dealing with experiments involving human beings. It was hard; Ted had to get Senator [John] Stennis to agree to it. It was another example of the way he could work constructively with Senators with different viewpoints. Stennis is a Democrat but he's a very conservative, hawkish Democrat, and yet Ted got him to agree to it.

I also worked on many other issues that were interesting. I did the environment and energy issue for him. Ted has always been a strong environmentalist, but he doesn't have much credit for it, because he never had committee leverage to shepherd major bills. In the Senate, if you don't have a committee assignment, it's very difficult to affect things in a particular area. One area he's always affected, in which he doesn't have a committee assignment, is foreign affairs. He's always—not in his very first years, but right after that—had an aide who dealt with foreign affairs for him, even though he wasn't on the Foreign Relations Committee. He made many trips and was always able to interject himself into foreign affairs without being on the Foreign Relations Committee, but normally you can't do that.

On environmental issues, although he always voted very environmentally, he never got much credit for it. As I mentioned earlier, he substantially increased the NSF budget for solar and other alternative energy research. A [Mark] Hatfield bill that Kennedy was a cosponsor on required people to pay a deposit when they picked up a bottled beverage, then return it and get the deposit back. It seems like a small thing, but it was one of the forerunners of getting recycling going. Teddy had a big bottling industry in Massachusetts that didn't like that very much, but he did that anyway. We worked on the Endangered Species Act and things like that. I spent a lot of time on these areas for him, but they weren't anything he got tremendous credit for, because he was doing so many other things.

There are two little items that that reminded me of. In covering the Senate floor, in those days we didn't have TV, so we didn't know what was going on on the Senate floor. You couldn't be there all the time; you were doing other things. These bells would ring in the Senate, different bells meant certain kind of votes and things. You'd be in your office in the Russell Building and the bells would start going. You'd swiftly call the cloakroom and they'd tell you what the topic was and you'd run—I mean *run*, I don't mean walk—from the building over to the Capitol. You'd run up, get onto the floor, and try to find some other aide you knew who's following it and ask what was happening, what it was. Then you'd take a 3x5 card and write a note to Kennedy. You'd try, in that little space, to say what the merits were, who was for it, and suggest a vote of aye or nay. You'd know what he needed to know.

This is the interesting part. You'd do that, then stand in the hallway, near the banks of elevators, with three elevators on each side. At the five-minute bell, when there would be only five minutes

left on the vote, all these doors would open and it was like a herd of buffaloes. All these Senators would come swarming out of the elevators and their various staff people would be swarming around. You didn't want to ever let any other Senator hear what you were saying to your Senator. Now, Ted is 6′2″ and I'm way down here. If you're tall staff, you lean into the guy, put your hands over his ear, and say something to him, whereas with me, he'd be leaning down and I'd be trying to jump up and talk into his ear and hand him this piece of paper. You'd say a few things, then they'd go swarming into the room and vote. It was kind of a fun thing.

The other thing that that reminded me of is whenever I took him to a reception in the evening or to something where he had to meet many people. The job of the staff person is to remind him to talk to so and so, and that's so and so. I needed a periscope. All I saw were people's backs. I'd be walking along with him, supposed to be telling him whom to talk to. I wasn't very good at that function.

He exerted a tremendous amount of leadership in the energy area, in NSF, where he got solar and alternative energy going, but he also wrote the amendment that led to the establishment of the Solar Energy Research Institute in Golden, Colorado. He also spearheaded an act called the Solar Home Heating and Cooling Demonstration Act of 1974, on which three full committees had to jointly agree. This again showed his legislative ability to pull together from all sides and get them working on issues. It involved the Banking Committee, which dealt with housing; the Commerce Committee; and what was then called the Labor Committee, his committee. He had tremendous legislative skill, which has marked his entire career. Jack Kennedy, of course, was noted for not accomplishing much in the United States Senate. He had his mark set on something else, then Bobby wasn't in long enough to do very much, and started running for President and trying to get Vietnam stopped.

**Knott:** Do you have any take on why you think he has proven—You partially just answered it, but why is Senator EMK a better Senator, in many ways, than his two brothers?

**Mottur:** Yes, he really is. It's an interesting question. I've never quite tried to think that through as to what the reason is. I'm speculating now off the top of my head. I would say that one of the reasons was, he's not quite as brilliant as Jack Kennedy was. Jack Kennedy was intellectually exceptionally brilliant. Ted is extremely bright and works so hard. Again, he has a voracious appetite for information and can absorb things, and he integrates it. After he had been there for a while, things I would say and things that would come from the health subcommittee or from an education hearing, he would weave it all together. He has a powerful mind, but he's not a philosopher. He'd never sit and read a book on philosophy or something. I think he felt a littler inferior to his brothers in terms of that, so I think he was determined to make up for it in tremendously hard work and in delving into the details. The other point is the way he deals with people.

Jack Kennedy, whom I never knew—I worked for him, but I didn't really know him—charmed people. Ted doesn't try to charm them; he just is such a wonderful human being and can connect with them on a human basis, regardless of which side they're on. He has these incredible relationships, and they're genuine. He doesn't develop the relationship so he can accomplish something. He develops them because that's how he is with people. He wants to be that way. On

the one hand, he had this tremendous way of dealing with people in the Senate so that he could develop things. Secondly, he worked so hard at the details, and was Whip for a couple of years, so that gave him a background on the inner workings of the Senate that he wouldn't have had otherwise. That's what comes off the top of my head.

Now I'm going to get into a major, substantive area. That earlier defense conversion legislation, which never was enacted, evolved into a related bill. We always kept the same number on it once it got started. It evolved over several Congresses, but it was always numbered S. 32. When we did it in 1972, the title of it was—the title changed over time—the National Science Policy and Priorities Act of 1972.

**Knott:** Let's take a quick break.

[BREAK]

**Mottur:** This act called for the creation of a civilian, NASA-type agency that, instead of going to the moon, would apply science and technology to problems of society. One of the key things we were talking about—In those days, you could pass bills for billions of dollars to do things that now you'd never get even remotely considered in the Congress. At that time, it was sort of natural.

They were going to build a model city and have major defense contractors take contracts to show how they could put all the electrical wires underground, so you wouldn't have any wires out, and set up model transportation, mass transit systems, and wire places—Sweden was doing things like this—and use it as a model to show people what could be done and to develop new technologies that then other cities could emulate it. The bill also provided for cities to form consortiums where they could purchase new technologies as a group and get better rates, and get research and development done.

It was a major bill, over $1 billion. It was the most incredible thing, because no one thought we could get this thing passed. They thought it couldn't possibly happen and we pulled it out. I remember the first hearings were in the early spring, and we passed it in August in the Senate by a vote of 70 to 8. That again shows the kind of bipartisan work that Ted does. We started from nowhere. When we started with that bill, everyone was discounting any possibility of its passing. But in the space of five months we wound up with a vote of 70 to 8. . . .

There were many people absent who said they would have voted for it. [George] McGovern used it. He was running for President then and used it in virtually all his speeches. That was the centerpiece of his Presidential campaign. He always talked about that bill, "This is the way we're going to change priorities in America from the military over to doing all these wonderful things we can do with science and technology to make America a better place."

It's interesting to understand how things happen or don't happen in the American political system. The only reason that bill didn't become law—We passed it in the Senate, but in the

House, there was a fellow named George Miller, not the George Miller who is currently in the House, but this one was also from California, and was chairman of what was then the House Committee on Science and Astronautics, and the bill was referred to his committee. The McGovern supporters in his district in California had supported a primary opponent to him in his district, and he *hated* McGovern. We had built up a tremendous groundswell of support. It wasn't just passing it in the Senate; we had people all over the country, at the grassroots pulling for the bill.

There was a Republican Senator from Texas, John Tower, who later tried to become Secretary of Defense and wasn't confirmed because of his alcoholism, but John Tower was a very conservative Republican. I called his AA early on and asked if Tower would co-sponsor the bill with Kennedy. He said, "Are you kidding me? Tower cosponsor a bill with Kennedy?" I told him I thought it was in Tower's interest, and he just laughed. Every week I called this AA, as we went on over the months, asking if he had changed his mind. "No." It came to be a joke between us. Early in the morning of the day we went to the floor, he called me, and of course, Tower wasn't listed in the co-sponsors. The bill was all ready; we had printed the committee report. He called me and sheepishly said, "Ellis, could you ask Senator Kennedy to ask for unanimous consent—to add Senator Tower as a co-sponsor?" The reason for that was that I had every engineer in the state of Texas pounding on his doors down there. When you create something like this, you have to do it at the grassroots level, too.

It should have passed in the House, too, but George Miller said, "Over my dead body. I will never allow that to come up here and let George McGovern get a centerpiece for his campaign." He was furious because of what had happened in his primary, so the country never got that law. Now it would be considered a huge, big, government spending program, but I think it would have been a wonderful thing. It would have shown all kinds of new, wonderful technologies that could have been applied to solve many problems in our society and show people what was possible. For the environment, you would have had environmentally clean technologies. But that's how things happen in our political system.

We kept pushing this legislation in subsequent Congresses, but it lost the momentum for that one big civilian NASA program and evolved into other things. Finally, in 1976, we did pass the bill, which was like the transformation of an organism as it changes into different forms, called the National Science and Technology Policy, Organization, and Priorities Act of 1976. One of the things it did was establish a White House Office of Science and Technology Policy, which still exists, even though [George W.] Bush doesn't make very good use of it. We did finally get it through but not with the kind of resources that were originally included; but on legislation, that's what you have to do.

You have to adjust and change and modify; and to get support, you have to add certain things to it. For example, in an early version, Senator [Jacob] Javits, who was the ranking Republican in the Labor Committee, all he cared about were pensions. It was a good idea, so we put in a thing for portable pensions for scientists and engineers, so as they moved around to the different corporations, they could keep their pensions. People are still trying to promote that kind of an idea, and that was a quarter of a century ago. I remember having lunch with Javits's guy. You have to listen to what people want and then figure whether there are constructive ways to give

them what they want, things that fit in with what you're trying to accomplish. That's how legislation is created.

I think this illustrates Ted's approach to legislation and the national interest. You persist over years; you reach out across the aisle all the time. In my personal experience, he worked with Javits; he worked with Senator Dominick; he worked with Mark Hatfield. You're absolutely firm on the principles you believe in, but you have to be tremendously flexible and innovative on the specific provisions that could help or hinder achieving those principles you're trying to get. You're always trying to get the best piece of legislation you can get. He has a tremendous dedication to the quality of it.

There's an incredible incident that illustrates that, and I'm going to tell you about it, but we only have a few minutes.

[BREAK]

**Mottur:** I'm glad you talked to Jimmy Flug, because he's wonderful.

**Knott:** Repeat something you said at lunch, if you don't mind, about the staff situation and how well Kennedy's staff functioned. That's an interesting thing. Then we'll get back to, you wanted to tell a story about Kennedy's ability to reach across the aisle.

**Mottur:** One of the phenomenal things about the Kennedy staff was something that I took for granted, but was actually contrary to what would happen in almost any situation. All of the top Kennedy staff were highly motivated, highly energetic, active, vigorous—some people would call them aggressive—people. When you pack people like that into close quarters, under intense circumstances, usually you get people at each other's throats. The remarkable thing about the Kennedy staff was that there were never those kinds of internecine squabbles, conflicts, and fights. I wonder why that was, even though that would be the normal thing to expect. I believe everybody—among his top people, and among people who weren't his top people but were working for him—was so dedicated to the Kennedys and to the principles and ideals for which they stood that that overrode the internal competitiveness that you would normally find among people like that.

I'll mention, as an example, without going into much detail, the Presidential campaign of '92, when I was down in Little Rock working for Clinton. The fights among top staff were legendary. They were going on all the time, and that happens in almost every political campaign, but the Kennedy operation didn't have that.

**Knott:** That's interesting. You would also think, he's been in the Senate now since '62, 44 years, there would be probably some instances of former staffers who went off and wrote some memoir. I can think of one instance of that happening, and we all know that.

**Mottur:** Yes. I can think of one case, Rick [Richard Burke], who did that. Rick, you know, had a mental problem. He had a real psychological breakdown, and I believe that's what precipitated his behavior. I don't want to get into Chappaquiddick—first of all, I wasn't there—but I'll tell you one thing that's very significant about it. Those young women who were there, I think one of them, her family was pretty well off. The others didn't have any money at all. If they wanted to say something about that, they could have made a fortune. They could have made an absolute fortune making up various stories to feed the public hunger for scandal. That never occurred, and it wasn't that they were so affluent that they didn't need the money they could have earned. Since there was no scandal, they weren't about to make one up to gain financial success. It shows you the kind of people who have been attracted to the Kennedys. You just don't find that with most other political leaders. It is extraordinary, as you say, over all the years that he's been there.

**Knott:** It is extraordinary. It's very unusual in Washington, it seems to me.

**Mottur:** Yes. In my own case, when I was leaving OTA in '79, I was offered the opportunity to go to the Kennedy School at Harvard and write a book about science policy in that era, and I refused to do it, even though it would have tremendously enhanced my own career. The reason I wouldn't is that because I have these detailed memos from Ted, it shows his inner, *tactical* concerns, the way he deals with different issues, how he accomplishes things, all of which I'm very proud of, but which would have shown his modus operandi in such detail that his enemies could have made tactical advantage of it. I said no way, although it would have been a great thing for me to do. I don't cite that as something unusual.

**Knott:** What do you think the ultimate source of this loyalty is? Is it to the principles that they stand for or is it to these unique individuals, or is it a mix?

**Mottur:** It's a mix. I got into it for Jack Kennedy's campaign through Dan Fenn. I believe Jack Kennedy stood for such wonderful ideals. He inspired a generation of Americans. For those of us fortunate enough to get in and be working on it in detail, it meant everything to me and to many other people. It was this tremendous dedication, but not just to the ideals in the abstract; somehow the Kennedys personally embodied the ideals. The way they acted and talked and thought—the Kennedy spirit is a wonderful thing. To be a part of that is so wonderful. That's what I know motivates me, and I think it motivates many other people.

Carey Parker, who is Kennedy's closest, closest aide, has been with him—he started in January 1969 and is still there—in this critical spot. I was friendly with a very distinguished Harvard law professor, Milton Katz, who was the director of all international law at Harvard Law School and had been administrator of the Marshall Plan after Averell Harriman. He was a very distinguished guy. Milton said to me that he tried so hard to get Carey Parker to take a professorship at Harvard Law School. He could have been one of the most distinguished law professors, making millions of dollars a year on the side, like Larry Tribe, who they subsequently did get to become a professor there, but Carey wouldn't ever do it. He'd rather be there in a very quiet, behind-the-scenes way because he believes in that Kennedy spirit and the Kennedy ideals. He plays such a unique role in working with Ted. There's a perfect example of somebody who selflessly gave up

all that, and is happy. He doesn't feel that he's given anything up. He's as happy as could be to be doing that.

I talked about the National Science and Technology Policy, Organization, and Priorities Act that we got through in 1976. We finally passed it and Gerry Ford signed it into law in April of '76. In the course of that, we had an incident with Nelson Rockefeller, who was Vice President under Ford, which is very instructive.

Rockefeller was very interested in this, so Ford gave him the lead role in working on this. Rockefeller and his staff worked with the House of Representatives people and the House Science Committee on this legislation. They negotiated in great detail and came up with a completed agreement with the House of Representatives. The person on Rockefeller's staff, Glenn Schleede, who later became the Associate Director of OMB, the Office of Management and Budget in the Reagan administration, called me up—I didn't know him—and said, "Look, we've worked out this agreement with the House and if Kennedy would agree to it as it is, we could get this thing going and wouldn't have to waste any more time on it." I guess I was a little sarcastic, because I said to him, "Glenn, I know you're up in the Executive Branch, but you see, down here we have these two things—one's the Senate and the other is the House—and they're both kind of equal. You worked that agreement with the House, but that doesn't mean we're going to agree with the House." That's how it started.

Roger Hooker, Rockefeller's top aide on Capitol Hill, said to me, "I'll tell you what. We want to get this through the way it is, so Rockefeller is willing to write a letter to Ted Kennedy, praising his tremendous leadership in all of this." This was the time of the 1976 reelection campaign for Ted Kennedy. "Rockefeller will write this letter extolling Ted Kennedy, which you can then use in his reelection campaign, if you would accept this House bill." It happened at the same time that OTA had gotten started. I was deeply enmeshed in getting OTA going. I was actually technically assistant director of OTA. I was running a massive program with advisory panel groups meeting all over the country, and doing all kinds of things.

I was busy as hell and to take this House bill and work it into what we would have wanted, and get a compromise, would have taken much time and effort. I'm only human and was the only person on his staff who could be doing this. It was very tempting to me to think, *Boy, this wonderful letter from Rockefeller, and the House bill wasn't bad*. There wasn't anything terrible about it, it just wasn't quite what we would have wanted. A lot of legislation got through that we weren't completely happy with. Kennedy usually backed me up in making decisions, because I knew how he would think, so I agreed.

Rockefeller wrote this letter, a wonderful letter. Rockefeller was very flowery and the letter praised the world about Ted Kennedy and his leadership on this. I got the letter. I went in to Ted in the evening—they were having a lot of votes on the Senate floor, so he had to hang around. We were in his office back in the Russell Building, just sitting there, and he had plenty of time in between votes. I said, "Look at this great letter from Rockefeller." He said, "That's wonderful. That's a great letter. Gee, that's great. How did we get that?" I said, "They did this bill with the House and it's not bad. It's not everything you'd want, but it's certainly okay. There's nothing bad in it and it's pretty good." He said to me, "Ellis, let me tell you something. When I put

through my first big bill in Congress"—It was the immigration bill in the '60s and Bobby was a Senator at the time or maybe was still Attorney General, I can't remember—"it was my first big accomplishment in the Senate, so I went into Bobby and said, 'Bobby, I passed this immigration bill,' and Bobby said to me, 'Teddy, is that the best bill you could possibly do?' And I said, 'Well, it's not quite the *best* bill. We had to do this and that, and we had to accommodate certain things.' Bobby said to me, 'Teddy, you're a Kennedy. When you do something, you make sure every time it's the best damn thing that could ever be done and don't you ever accept anything that's second best.'"

I thought to myself, Oh God, I've already got this agreement with Rockefeller. And I don't have the time, and I'll never get any sleep, I'm going to have to do this thing. He turned to me and said, "You go back and you say that we're going to do a Senate bill on this. We're not accepting the House version unchanged. I'm not accepting a letter like that under false pretenses. You take it back to Rockefeller."

I went back to Roger Hooker and was really embarrassed, because in all my years with Kennedy, it was the only time I could remember that there was something I did that he countermanded. I did some pretty interesting things, but I knew what he was thinking and it always worked. I said "Roger, we're giving you this letter back because Senator Kennedy feels that he's going to have to do the Senate bill and it's not fair for him to take this letter." Roger said, "Wait here, I'm going in to the Vice President." He walked in to Nelson Rockefeller, I wasn't in the room, after a while Roger came out and said, "Ellis, the Vice President said that when he signs a letter, it stands." Now that's class for Rockefeller. If Rockefeller had taken that letter back, it would have been justified, but he said, "No, I signed that letter and it's going to stand," praising Ted Kennedy. Both of them, in my eyes—Kennedy wanting to return the letter and Rockefeller refusing to accept it back. That shows you real class. You don't see much of that in American politics.

**Knott:** Right. Do you recall telling Kennedy this part of this? Was he aware of this, Rockefeller's reaction?

**Mottur:** I told him, but I don't know if he remembers it. It sticks in my mind a lot.

**Knott:** But you did tell Senator Kennedy?

**Mottur:** Oh yes, sure. Of course, we used the letter in the campaign, but yes, I certainly told him.

It was hell from then on, because the White House orchestrated a campaign. First, they couldn't believe that Kennedy cared that much about doing this, so they thought it was *me*. It was the opposite of what *I* wanted. The White House actually put out memos talking about me and how to get me: It's Ellis Mottur who is pushing this. Kennedy couldn't possibly be worried about something like that. They orchestrated every leader of the American science community, including the Democratic ones like [Jerome] Jerry Wiesner. Every one of them called me up, [Dwight D.] Eisenhower's former science advisors, and asked how I could be doing this and why

couldn't we get this through? I had about a half-hour conversation with each one of them, explaining what we were trying to accomplish. In the end, we got through our version of it.

Bill Baker, who had been [Richard] Nixon's informal advisor, and was the head of Bell Labs, Dr. William Baker, ran a big dinner for the American Chemical Society in Washington. He got up and for ten minutes talked about what a great job Kennedy did in improving that bill, and how it was worth it. I had thought it would be so horrible; I was so worried. We were getting battered day in and day out. In the end, we did it; it came out and was acknowledged as a great bill.

Many people don't appreciate the full range of Ted's abilities. The best illustration of it was something I was not present at, but neither was any other staff person. Nixon pocket-vetoed some bill while Congress was in brief recess. There was a constitutional question of whether pocket vetoes were intended for brief recesses or only for long ones, when Congress used to be out of session. There was a lawsuit and Ted went before the U.S. Court of Appeals and argued that case against the pocket veto. When he walked into that room, the Justice Department phalanx of lawyers was at their table with huge briefing books and documents all lined up. He walked in and wouldn't let any staff accompany him. He went into that place with only one thing in his hand, the Constitution of the United States, and argued that case against all those Justice Department lawyers and won. He defeated them, a tough thing to do. Anyone who is ever knocking his abilities as a lawyer, I think that one would show it in spades.

Now, to get to technology assessment. The technology assessment field was a new field that emerged in the late 1960s. I personally was involved in the development of it while I was at George Washington University and while working for Ted. Congressman Daddario was pushing it in the House, then he left the House to run for Governor of Connecticut, which he didn't win, but Congressman John Davis of Georgia, a Democrat from a district later held by Newt Gingrich, sponsored it in 1971. It got through the House in '72. This case illustrates the tremendous discrepancy between how various publics *perceive* what happens in Congress and what really happens. Daddario had been holding hearings for years on technology assessment, so the scientific community felt that there was a groundswell of momentum to get this office created. They still believe that is what occurred.

What actually happened in the House was that Congressman Jack Brooks, who chaired the Committee on Government Operations and was a very powerful Texas Congressman, conceived of the bill in such a way that if it got through, he thought he could control it. It would be under his jurisdiction somehow. He made some modifications to the bill so that he would get control of it, and he had a lot of power. John Davis of Georgia and the Science Committee didn't have the power, but Jack Brooks got it through the House of Representatives for personal purposes, not because the science community all thought it was great. It got through the House and came to the Senate, but the bill that came from the House had a board that would govern the office and it would have a majority of the majority party, which, in those days, we thought would always be Democrats. Little did we know. In any event, that's how the bill came from the House.

When I discussed it with Kennedy, we agreed that you can't have an operation like this succeed if it's not completely nonpartisan. He said, "We have to have an absolutely nonpartisan office and we have to change it so that instead of a majority party having control of it, there are an

equal number of Republicans and Democrats running the board." We modified it in the Senate to get an equal number of Democrats and Republicans, so the board consisted of six people in the House and six people in the Senate, three Democrats, three Republicans, in each chamber. He guaranteed the nonpartisanship of it. We then managed to get it passed by unanimous consent in the Senate. That's, again, Kennedy's ability to make things happen. You can't get something unanimously unless the Republicans agree to it. Nixon signed it into law on an interesting day, Friday the 13th of October, 1972. I always wondered what that would lead to for OTA, if you're superstitious.

OTA was set up with a Governing Board, an Advisory Council, a director, and his staff. There was a huge amount of publicity. No appropriation had been voted yet. I was still running his NSF subcommittee, doing the legislative assistant work, doing other things, and I was now given the task of getting OTA organized before we got an appropriation. I had one secretary and I received 4,000 résumés. I was sitting in this little room—I was no longer in that other room I described earlier. The Secretary of the Senate gave us a little room because I had all this extra work to do. I had this little room down in the basement now, with one secretary, and I had 4,000 résumés. I had Senators and Congressmen calling me up, telling me I had to give jobs to so and so. We didn't even have an appropriation, and yet the publicity of it had been so enormous that there was a tremendous push for everyone to get involved in OTA.

Finally, we got a board approved for it and worked it out so that Kennedy was the most senior member of the Democrats, then we got Senator Clifford Case of New Jersey, a Republican vote, even though we were even numbers of Democrats and Republicans. He voted with us, then the other two Republicans fell in line, and Ted was elected chairman of the board. Then we had to get money for it. Senator Fritz Hollings, one of the other members on the board, was chairman of the subcommittee that handled appropriations for Congress, so he inserted an appropriation for it in the Senate bill, and went to conference with the House, which didn't have it in their bill because by the time we passed it, their appropriations bills had already come through.

After his appropriations conference, Hollings came back to his office and called me in. Fritz Hollings was one of the few Senators that I dealt with directly, in addition to Kennedy, obviously. [Walter] Mondale and Hollings, I think, were the only two that I spent much time with directly. Usually with Senators, you deal with their staff. Fritz called me in and said, "Ellis, that OTA thing is dead." I said, "Dead?" He said, "Let me tell you what happened in the conference." The ranking Republican on the appropriations committee was Elford Cederberg from Michigan, a conservative Republican, who had said he wasn't going to fund something to give Teddy Kennedy a shadow government, because the *Wall Street Journal* had this big editorial about "Teddy Kennedy's shadow government."

**Knott:** I wanted to ask you about that.

**Mottur:** I'll talk about it in a minute.

Cederberg had said he wasn't going to give money to him, that it was ridiculous. The Democrat who chaired the Appropriations Committee was [George H.] Mahon of Texas, a very conservative Democrat, and he wasn't exactly a big fan of Teddy Kennedy. Because Cederberg

was taking this very strong stance, Mahon went along with him. Hollings told me it was hopeless; there was no way the House would ever accede to an appropriation for it. Many laws get passed without money ever being appropriated for them, so OTA probably wouldn't go. I went in to Kennedy and said, "Hollings just called and clued me in. This is what he told me." He said, "Oh, God. Well, you can't win everything. We just have to fight on the things we can do." I said, "There has to be a way." He said, "Well, you go find a way. If you can find a way, do it, but don't bother me with it until you've found it." I said OK. He had many other things he was involved in. He wanted it very much, but it really looked dead.

What then occurred illustrates how you can get things done in the Congress. First, I called every contact Kennedy had. The Kennedy organization is vast and I called everybody we knew to see if somebody had some contact with Elford Cederberg and who could get to him. Nothing in the entire Kennedy operation could connect to Elford Cederberg. Then I called Dan Fenn and asked him to do me a favor. He was teaching at Harvard Business School and had a class on business/government relations. I said, "You give all these projects to your students. Can you give your students a project where they look at a Congressional district and determine what companies dominate it, what affects those Congressmen? This is Elford Cederberg's district; find out what ticks in that district." He asked his students and—nowadays, I could probably have found it on the Internet, but it turned out that Dow Chemical was the biggest employer in Elford Cederberg's district. Now I knew the one thing he would listen to.

The question was how to get something to happen. We had this Advisory Council and everyone in the scientific community wanted to be on it. We were getting letters and phone calls from people all over the country; everyone wanted to be on the Advisory Council. Kennedy wanted that to be a balanced council, with conservatives and liberals and people of different backgrounds. He understood the nonpartisan demands of an organization like OTA. This was in keeping with his principles, so I called the National Security Industrial Association, which represents the defense industry. I had worked with the defense industry years before and knew some of the people. I said, "We're looking for a good, conservative person who is strong on defense to be on our Advisory Council. Of course, we want balance. We don't just want liberals; we want a span of views. For example, do you know anybody in Dow Chemical who would be good for our Advisory Council?" They said, "Yes, there's this executive vice president, [J. M.] Levi Leathers, and he's wonderful. He's a terrific guy."

I called Levi Leathers and said, "I guess you've been following the establishment of OTA?" He said, "Oh yes, it sounds like a great organization." I said, "Well, we're looking to get a very balanced council, with conservatives as well as liberals. The national security and defense people recommended you and said you were good. I think we could give a lot of consideration to it." He said, "I'd be very interested." I said, "It always helps on these things to get backing from different places. Do you happen to know Elford Cederberg?" He said "Yes, I know him, but the chairman of the board of Dow knows him much better." I said, "Do you think you can get the chairman of the board to talk to Elford Cederberg about your appointment, because I think we could probably get it through if we could get that kind of backing."

The chairman of the board at Dow Chemical then contacted Elford Cederberg. Following that, a letter arrived for Kennedy from Elford Cederberg saying in effect: "Dear Mr. Chairman, please,

if there is any way you can possibly appoint Levi Leathers to this council, I would be indebted to you beyond belief, and, of course would push for its appropriation." I took that letter, walked into Ted's office, put it on his desk, and said, "Read that." He looked at it and burst out laughing, and I said, "We did it." That's the only reason OTA came into being. It wouldn't have happened otherwise. Many other people were involved in it at other stages, but it was completely bottlenecked at that point and would never have gone into existence without this sequence of events. It shows how things can happen in the Senate.

Kennedy's goals for OTA were to give Congress its own analytical arm for issues involving science and technology, so that Nixon—Earlier, the Nixon White House had fought on the ABM [anti-ballistic missile] Treaty and Congress didn't have good in-house expertise to consider it. And Ted had been deeply involved in the issue and wanted Congress to be equipped to deal with such issues in the future. He wanted to have an office that was totally nonpartisan and objective, because if it didn't, it would have no credibility and would be useless. He was trying to get the best inputs of technical expertise and legal and public policy leaders, but he was also concerned to do something different, which was to bring into the debate and the dialogue the concerns of citizens, of stakeholders in the process, citizen activists, and people who looked at it from the consumer point of view, or the citizen point of view. That was unique at that time.

The National Academy of Sciences, which does many studies, never brings in those other points of view. All they have are the experts on their panels. They never bring in people like that and he really wanted to do that. A speech he gave at that time had a line in it that I love very much: "Policy formation without public participation is like faith and hope without charity," from St. Paul's epistle to the Corinthians. I'm paraphrasing a little bit. But that was the point. You had to get the other side. When you're dealing with big public policy issues, you can't just have the experts. They used to say war is too important to leave it to the generals. Similarly, public policy is too important to be left to the substantive experts.

We then created Advisory Council that had people like Levi Leathers. We also had the president of Texas Instruments, a real conservative. The chairman was a very conservative Democrat, Harold Brown, who later became the Secretary of Defense under Carter. We had a Nobel Laureate, Dr. Fred Robbins, who served as president of the Institute of Medicine. We had a citizen activist, Hazel Henderson, who was a futurist. Then we set up advisory panels for each study that OTA would do. Again, these would have citizens in them—Ralph Nader's sister was very active in that—as well as scientists, industrialists and public policy leaders.

In the American democracy, you have this clash of interests. People talk about special interests. Well, there are zillions of special interests; some of them I might not like and other people might like others, but that's what a democracy is about, to have this crucible where all these interests can give their input and it can become part of the process and be considered. Obviously now, with money the way it is, it's tough for some of them to get their voices heard.

Just as Ted always wanted the widest range of views and inputs to his decision making on issues, he wanted OTA to have as broad a base of information and points of view. So what we tried to do with OTA—and Kennedy believed in this so strongly—was to get the widest range of inputs. They'd be thrashed out, and by the time a final product was reached, it was solid, credible, and

objective. Despite everything Ted did to make this nonpartisan, the minute he was announced as chairman and before we got that appropriation, the *Wall Street Journal* had filled the whole op-ed page and the title was "Teddy Kennedy's Shadow Government." Jude Wanniski, who later became a very prominent conservative spokesman, was the reporter, and he came in to interview me sitting on a folding chair in that crazy little "leg. room" that I've talked about, where you have no room to move. He sat there with me for at least a half an hour, and I thoroughly explained to him the nonpartisan aspect. He understood what we were doing, then wrote that article that ignored everything we were trying to do.

**Knott:** Did the article take the same tone as the headline?

**Mottur:** Absolutely.

**Knott:** Sometimes the headline gets tacked on there afterward.

**Mottur:** No. His article completely reflected the headline. He left out everything about OTA's non-partisan structure and operation. It wasn't that he didn't understand it; we had this long conversation. He just wanted to get Ted Kennedy.

**Knott:** They saw this as Kennedy setting up for '76?

**Mottur:** Yes, absolutely.

**Knott:** For a Presidential run?

**Mottur:** Yes. It was terrible. We didn't even get started and that thing came out. OTA was maligned before it even got started. The fact was, Ted knew it had to be nonpartisan and objective to succeed as an office and do the job for Congress. It also was to his political advantage for it to be nonpartisan, because the right wing charged him with being this extreme, partisan guy. If he could show that he was running an important operation in a very statesmanlike, objective, nonpartisan way, it was politically advantageous, too. He wanted to do it on the merits, but it also was to his political advantage. We'd be out of our minds not to have wanted it that way, yet that headline was sure the start of a real good myth.

**Knott:** How did you combat that?

**Mottur:** Well, it was tough. We brought on Mim Daddario, who had left Congress when he didn't win the Governorship of Connecticut. He came in as OTA's first director. We started programs in health, in energy, in oceans, the environment, national security, food and agriculture, information technology, and so forth. Each program, in addition to the overall advisory group for all of OTA, had a special advisory panel for that program, then each project they did had its own ad hoc advisory group, which lasted only for the duration of the project.

OTA, at its height, had about 150 staff and a pool of about 1,000 consultants, panelists and consultants. We reached out into the scientific/technical community. In effect, OTA was an interface between the political world of Congress and the substantive world of science and

technology, so that we could somehow transform—What the Academy of Sciences does is entirely technical and leaves out other dimensions of public policy that it's very hard to incorporate the NAS reports directly into the political process, but the clients of OTA were the Congressional committees. We didn't let individual members ask us to do projects. It had to be a committee that would have legislative ability to do something. I think of it in science images: It's sort of like in protein synthesis; the RNA [ribonucleic acid] molecules interpret between the DNA [deoxyribonucleic acid] molecules and the protein molecules and somehow get it to work. OTA was like that, only trying to interface between the technical community and Congress.

After that happened, I technically was put on as assistant director of OTA, but in reality, I still was working directly for Kennedy. My relationship with Daddario was very collegial and friendly, but he knew I was working for Kennedy. I wasn't ever working for Mim, but I tried to be very cooperative with him, and he knew he had to get Kennedy's approval for things, so he tried to be cooperative with me. It didn't really change my relationship with Kennedy, although on paper my position had changed.

At OTA, I was the person who worried about the Congressional board under Kennedy's chairmanship, like a staff director of a Senate committee or a joint committee would. I also was the one who interfaced with the overall Advisory Council. I also chaired a committee on the design of different technology assessments. Everyone in the agency would sit around when a new thing was being decided on, I would chair the group, and we'd decide how to go at it.

I also directed a program that didn't report to Daddario at all; it reported to the Advisory Council. It was sort of my board of directors for this R&D [research and development] program, Congress's answer to the White House Science and Technology Office. We had five advisory panels: one on the health of the scientific/technical enterprise; one on the applications of science technology; one on the decision-making structure for doing those things; one on "appropriate technology," meaning solar energy and alternative ways of doing things environmentally; and one on public participation. It had some terrific people; the one who chaired the appropriate technology panel was Robert Redford's wife. I had a fascinating weekend at their ranch because of that. I love riding horses and he raised these Appaloosa horses. We had university presidents, top corporate executives, Nobel Laureates, scientists, leading lawyers, and citizen activists like Ralph Nader's sisters. It was one of the most wonderful groups. Its purpose was to develop a knowledge base for Congress in all those areas.

**Knott:** Were you particularly engaged with Kennedy still, during this time?

**Mottur:** Oh yes, yes. I wasn't sitting next door to him anymore, so I probably didn't see him day in and day out. In the earlier days, I would see him all day long. With OTA, I'd come over there not every day, but I'd usually be in his office quite a few days a week. The memos kept flowing. He was constantly writing me back on everything. I was always in touch with him that way, but I wasn't bumping into him as often in the hallway. Meanwhile, I was still doing other things for him.

During that time, I shaped the women in science legislation, a major piece of legislation to open up mentoring opportunities and incentives, and ways of getting more women to be encouraged and fostered in getting into science and technology. I still wrote speeches for him.

On July 4, 1976, he issued a major statement for the centennial of the American republic, which I wrote. It was called "America's Third Century." It commemorated the bicentennial and evinced the optimistic belief that we can shape and have a better future. We were very involved with a thing called the World Future Society.

Another example of how he operates. . . . while in OTA, I was up at Woods Hole on Cape Cod on vacation and it was my wedding anniversary. I woke up that morning, on my wedding anniversary, in this hotel with my wife and the phone rang. It was Ted, and he was in Hyannis. He said, "Ellis, I have to give this speech in a few days in Boston to the first Congress on Cell Biology." The actual biology within each cell was emerging as a key field. He said, "The Health Committee drafted me a speech and I don't like it. I want you to take it and rewrite it." I didn't know anything about cell biology. This was my wedding anniversary and we had been planning to do all kinds of things. I had to drop all that.

I drove to Hyannis and he said, "Here's the speech. Work it up. I don't need it for a couple of days." I rushed back to Woods Hole. The president of the National Academy of Sciences, Philip Handler, had a summer house in Woods Hole. He was a biologist who really knew about this field, and a wonderful guy. I said, "Phil, you have to help me. I'm supposed to rewrite this speech on cell biology and I don't know anything about cell biology." He spent a whole morning with me at his house—giving me a tutorial on cell biology. He really knew the field. People were disputing over concepts and research approaches, and he made it exciting, dramatic, and wonderful. I now had the information. It turned out to be a smashing success when Kennedy gave the speech.

**Knott:** Is that somewhat typical about the way he operated?

**Mottur:** Yes. He wanted to get what he wanted and the Health Committee guys—It was no reflection on them. They just didn't know about this, and he knew I'd find a way, with my contacts, to do it.

Technically, I was now in OTA, but all the time I still worked for him. In the early years it was as a consultant; later it was in OTA. But it was always working for him. He always knew exactly where we were every day. He had a card with his key people and the phone contacts for them. We could be on our vacation. We could be in Timbuktu. He always carried a card in his pocket, so he could call us anywhere, any time.

**Knott:** There was a system? If you were going away, you'd have to leave your number?

**Mottur:** Oh yes, you always gave the contact points. It didn't matter, wedding anniversary or not. It was fun. I enjoyed it and learned a lot.

**Knott:** Maybe we'll incorporate that into the oral history.

**Mottur:** It was really something. The way he did things was reflected in how the staff did things. There was once a report on OTA that an MIT [Massachusetts Institute of Technology] professor, Eugene Skolnikoff, prepared. It was a very good report. He had done a very good job on it, but academics sometimes don't say things as emphatically as political people do. They'll say things in a roundabout way another academic can understand, but to the public, sometimes, it doesn't quite come across. In the last few paragraphs of this report, he said something in an excessively subtle way—I knew he didn't mean it the way I knew many people would take it.

I called MIT to ask Gene if he could change it a little bit, not to change the meaning, but to make it clearer. They said he was on vacation and I wouldn't be able to reach him. I said, "Why not tell me where he is? They said, "We can't, he's in a camper. He and his wife have gone in this camping recreational vehicle." I said, "Well, where are they?" "They're traveling across the country; we don't know where they are." I found out the license number of the camper he had and a rough idea that he was going across the northern part of the country. I had the state police in every state looking for that camper with that license number. All of a sudden, I got a call from a phone booth on some highway in the Midwest. He said, "Ellis, what is this?" I told him about the speech and he said, "Oh yes, fine. We'll have that paragraph changed." A perfect example of how Kennedy operated, shaping how I operated.

**Knott:** Was it ever overwhelming? Was there ever a time when you thought, *Geez, I wish I could just get away for a week*?

**Mottur:** No. I loved it.

**Knott:** Never?

**Mottur:** No. It was draining; it was tiring, but it was so much fun and so exhilarating, and Ted is such a wonderful guy. He was always full of fun, and we kidded each other. It was always wonderful.

I want to mention two other big speeches during that time. In 1975, I drafted his keynote address to the World Future Society, where I came up with this line: "Those who actively anticipate the future are empowered to shape it." The idea was that the future isn't something that just happens. If you are actively trying to think it through, you can do something about it. That went over great in the World Future Society. To show the humorous and bantering relationship we have, I was driving him to give the speech at some Washington hotel. I don't remember which one it was, but I was kidding him about something and just kept kidding, ribbing him pretty hard. Every time I would do that, he'd punch me on the arm. It was actually black and blue afterward, but it was an Irish form of affection, when you give these jabs.

In 1976, we did the centennial keynote speech to the American Chemical Society in New York. Of all the speeches I ever wrote for him, this one he made me rewrite over and over. Most of them were just a little off and he'd look at them—Some, in real rush cases where I knew what it was, I could just do it and he could read it, and people would have thought he had seen it a million times, because I knew his way of speaking. In this one, I had to consult everybody in the

scientific community and rework and rework it. It had a wonderful theme, one we pushed through all his years, to get scientists and engineers to become more active in the public policy arena—not just to state their ideas, but to become active citizens and try to affect policy. That was very difficult. The scientific community was incredibly ignorant of the workings of government. During the conversion legislation, I actually had engineering graduates of college and graduate school—I had to tell them that there are really two houses in the Congress, not just one, to tell them things like that. You'd be surprised.

One day, we had a hearing on the economic conversion issue. Busloads of unemployed engineers came down from Massachusetts to testify at this hearing in support of our legislation. They came out and supported it, but in typical scientific fashion they said, "We support this legislation, now here are some of things we want changed to improve the legislation." They had one sentence at the beginning that said they supported this legislation, then they talked about various things to improve it. The *Business Week* reporter who wrote it up—and he didn't do this out of maliciousness—wrote his story, "The engineers opposed the legislation." Because—

**Knott:** They had so many suggestions to offer.

**Mottur:** Yes. In the public policy arena, you have to say it, hit it again, and pound it; otherwise it didn't come across. Ted was trying to get them more active in public policy.

The story we told in the speech to the American Chemical people was of the two founders of modern chemistry, [Joseph] Priestley, who was British, who had codiscovered oxygen with [Antoine-Laurent] Lavoisier, the Frenchman who invented the combustion theory that explained how oxygen combusted. Lavoisier was a nobleman. Priestley, during the French terror, was in London, but he was an advocate of the French Revolution, which many people in London weren't, and irate neighbors burned his house down out of opposition to Priestley's support of the French Revolution. Lavoisier, on the other hand, was a French nobleman, and was beheaded in the terror. One of the closing comments in Kennedy's speech was, "I'm not suggesting that the members of the American Chemical Society should lose their heads or even their homes in social causes, but you could get more involved in public policy." It went over pretty big.

This was another example of the hectic life in which we did these things. Because he had made me change the speech so many times, shortly before we were heading for the airport, I was still cutting and pasting things, taking this paragraph here and putting it there. I was standing at Eddie's desk, and had spread it out all over. The sweat was going down my forehead I was working so fast to try to get it done. I knew once he came flying out of his room, I would have to grab whatever I had and that would be it. Finally, I clamped it into a loose-leaf book and closed it, then he came barreling out of the room, "Let's go." We jumped into his car, he had a driver, and it seemed we were going to miss the shuttle to New York. It was a speech in New York.

There was a bad traffic jam going toward the airport. It was late in the afternoon. He said to his driver, "Get over in the other lane," the oncoming lane, where people are coming from the other direction. The driver said, "Are you sure?" He said, "Get over there." He got over and we drove against traffic in the other lane. Policemen would stop everything, then they'd see it was Kennedy and say, "OK, go ahead." Then the office called the airport, and they held the plane.

We finally got onto the plane and sat down. He always flew coach class, but they always gave him two seats. He opened up and unlocked "the bag," his black attaché case, and the top popped up. You would have thought it was a jack-in-the-box because there was so much stuff jammed in it, and he said to me, "That's it, that's the infamous bag. There it is; look at that. I have to go through all that stuff!"

We went racing into New York, and as we approached the cab to go into Manhattan, this very well dressed guy comes up to us and said he's doctor so and so. "I admire your work on health issues so much, but Senator, I lost my wallet. Could you possibly help me get a cab?" Ted turned to me and said, "Ellis." I handed the guy $10, and thought, I'll never see that $10 again. But the guy actually did mail the check.

**Knott:** Did he really?

**Mottur:** He did. Things like that happen to you when you're with Ted. We got in the cab, and we were driving through a neighborhood in Queens. It was a very poor, slum district, essentially a black district. I remember listening to him, the deep-felt, compassionate, sincere feelings he had. He said, "Look at those people. Look at all this stuff we're doing. How can we penetrate that? How can we do it?" He cares so tremendously about these issues. On this compassion point, you know, many of these political people have compassion in general, but he had it not only in general, but for every individual human being.

**Knott:** Where do you think that comes from? Is that part of his religious faith?

**Mottur:** Some of it is the Rosemary [Kennedy] thing, who was retarded, and the way Eunice [Kennedy Shriver] then led the way for doing things for the retarded. And his mother and her extremely strong religious faith, but it's very real. When we would walk, say, through the Capitol and were in a big hurry to get somewhere, if he saw somebody in a wheelchair, it didn't matter how important it was to get somewhere or how much in a hurry he was, he would always walk over. I don't mean in a rush. He would walk over and the heck with whatever schedule he had, he would quietly talk to that person. There were no cameras around, no media attention or anything. He wasn't doing it for anything except for that human being at that time, and he always did that.

Another thing he did, it was a little different from that, but when George Wallace was shot in the campaign in '72, Ted went down there. George Wallace—as far opposed to him as can be. He made a special trip, went down, and spent time with George Wallace. They talked about his brothers and how he understood what Wallace was going through, and developed a personal relationship with him as a human being. People talk about him being out to get media attention, but he is as sincere a person as you could ever find. It's important in politics; you do have to get media attention because that gives you your political capital. It's like money to a businessman. It enables you to then be able to do things. But his feelings are really deep and sincere. That Wallace incident really showed it.

Getting back to the speech in New York, he was going to stop at Jean's apartment, Jean [Kennedy] Smith, who later became Ambassador to Ireland. He said to me, "Go over to the hall.

I don't want to come there way early, just right when they're ready for me to speak, I want to be there. Make sure you don't call me over there too soon." I went over to the hall.

The head of the American Chemical Society was this Nobel Laureate, Glenn Seaborg, who had been head of the Atomic Energy Commission. Seaborg, first of all, tricked me. I said for him to let us know when it's really time for Kennedy to speak. Seaborg said it was time. I had him come, but they really weren't ready for the speech. Seaborg just wanted to have time with Ted before the speech. We went into this room; Jean was there, I was there, and Seaborg and Ted, and maybe another person or two. Seaborg said, "I want to introduce you to the audience. I just need some personal story to open up the introduction, something real that will connect." Teddy said, "I don't know, I can't think of any," and Jean said, "Tell them about the time in Milton." He had gone to Milton Academy. He said, "No, no, forget that, Jean." She said, "No, no Teddy, tell them about the time in Milton." He said, "Forget it, Jean. Forget that." She said, "Well, I'll tell him." She then proceeded to relate this incident.

When he was a student at Milton, science wasn't his best field, and he was very mischievous. In chemistry, an important principle is the conservation of matter. Usually there's an experiment for kids in introductory chemistry, where they have many different beakers and tubes all connected. Material flows in at one end and all kinds of things happen, colors change, and if you weigh it at the end, it weighs the same as it did at the beginning. That's conservation of matter. Well, Teddy sneaked into the lab at night and rigged the experiment so that it wouldn't work, and got in tremendous hot water at Milton for having done this. Not having been there, I can just imagine the professor's face when the experiment didn't work. Jean told this embarrassing story to Glenn Seaborg, who then used it in his introduction to Ted's speech.

Jean and I went out into the audience and sat down at a table in the front. People had finished dinner in that room and they had cleared the tables, but everyone was at tables. They still were not ready for him to speak. This opera singer, Patrice Munsel, was singing in the microphone and going on and on. Don't forget, these people had been there all week. They had been there all that day, had had a heavy dinner, it was now approaching 10:00 P.M., and I had a long speech for him to give. Jean was saying, "How can he give that speech? When is she going to stop singing?" Finally, she said, "Ellis, go pull the plug on her microphone." I said, "Jean, I can't." She said, "No, you have to. It's going to ruin his speech. You have to go up. She's been singing without stop. Go pull the plug." I said, "Oh, Jean, please." "Go up, Ellis, and pull that plug." So I went behind the curtains, looking for the damn plug. I finally found it and was about to pull it when she finally stopped singing. I didn't have to pull it. I was so relieved.

**Knott:** That's a great story.

**Mottur:** He finally came out and gave this enormously long speech, and got a ten-minute standing ovation, after everything that had happened.

**Knott:** That was the one time in your life you were asked to do a dirty trick.

**Mottur:** This all happened when I was in OTA. I'll tell another one that illustrates the Kennedy operation. It was Christmastime in the election year. It must have been '76. He was going to have

a Christmas party at his house and I was going to drive out with his AA, Eddie. We were going to drive out together, and Eddie's wife and my wife were driving together. We'd meet up there.

**Knott:** Eddie Martin?

**Mottur:** Yes. Everyone else had left to get to the Christmas party, to get over there early, but I was still in the office with Eddie. Eddie had to finish something, and the phone rang. I picked it up. It was Ted, on the Senate floor, "Where's that Lowell stuff? What's going on in the Lowell stuff?" I said, "Lowell stuff?" I knew Lowell was a city in Massachusetts, of course, and I knew the woman handling Massachusetts affairs, Mary Murtaugh. She was going to law school at night at Georgetown, and they were having an exam. The Democratic cloakroom had assured her nothing would happen on that particular piece of legislation, so she went to take the exam. I went to her desk to see if I could find the papers on it, but it was all locked up. I couldn't find anything.

I got back on the phone and said, "Mary's gone. She went to take a test, and I didn't find anything on it." He said, "Get over here immediately." I told Eddie that he wanted something about Lowell. I didn't know what was going on, but I went running over to the Senate floor. It was late in the day, but the Senate was still in session. I came on to the Senate floor and he said, "Look, Ellis, I need you to write the floor statement on that Lowell thing." I needed a hint or something as to what it was, so I asked, "The Lowell thing, is it an amendment or a bill? What is it?" He said, "Oh, it's an amendment." I said, "What's it an amendment to?" "The interior bill. Look, you have to write the floor statement for it because it came up unexpectedly and I need my statement to be included. I said a few things, but Mary didn't have the thing for me. Also, Scoop [Henry Jackson] agreed that we'd have a colloquy between him and me, so write the colloquy between Scoop and me into the *Record*." (What would have been said if they had actually said it.)

I went running out to the Dirksen Building, where the Interior Committee was, praying somebody was still there. It was right before Christmas, but fortunately somebody was still there. I got a copy of the committee report on the overall legislation and it talked about Lowell. The bill called for setting up a national industrial park.

**Knott:** The Mills.

**Mottur:** Like a national park, but an industrial one for all the old mills. So I called Eddie, and said, "Look, I'm going to the official reporter's office." That's where the corrections to the *Record* are written. "I'll write the statement and the colloquy and everything, but wait for me, because I don't have my car here and you have to get me to the party." He said, "I'll wait, don't worry." I went over and wrote the statement and the colloquy with Scoop. That sounds so crass to people, but in the Senate in those days. That's how things were done. I knew what Scoop would have said. There was nothing wrong with it, except people who read it didn't know that these things were done that way.

I wrote the thing, rushed back to the office, and Eddie was gone. To get a cab at that point before Christmas and get out to McLean was really tough. I was really mad. My wife was there. I

always look forward to the Christmas parties and here I had gotten stuck on this thing I didn't know anything about. I finally got a cab and got out there. I was mad at Eddie and said, "Why the hell did you leave? You were supposed to wait for me." He said, "I couldn't help it, Ellis. The press wanted to do a radio interview with Ted, so I had to figure out how to do that. I had to get out here and get him ready to give a radio interview about this Lowell thing he did." This shows you how Eddie did things. He said, "I didn't know what it was all about—" and Eddie didn't even have that committee report that I had. Eddie said: "I called the reporter in Lowell and said, 'We just passed that Lowell thing, what do you think the impact is?'" The reporter told him everything that Eddie needed to know, then Eddie went and briefed Teddy, who gave a radio interview that was smashing, about what he had accomplished with this bill. That shows how we got things done.

It turned out to be a good evening for me because since Eddie and Ted, himself, realized he had put me out of sorts, after everyone left the party, we had a private party, just him and Joan; Eddie and Marge, Eddie's wife; and my wife and me. It was a real nice little thing. That was the time Joan had had a little bit to drink and she was hugging me and telling me, "Oh, I can't wait until I get to Hyannis each year." She couldn't stand the intense life in Washington. She's such a lovely, sweet, wonderful person—

**Knott:** A private person.

**Mottur:** We were in and out of her house, running around doing things, and she longed for the summer, to get up to Hyannis. She wasn't cut out for that intense public life, and then to go through all those tragedies was just too much for her.

I should mention, while I'm talking about Joan, how Ted parented not only his own kids, but also Bobby's kids. I was sitting in the room right next to him and could hear him sometimes, if he couldn't get home quite yet—Patrick was pretty young then—he'd be telling bedtime stories over the phone. Teddy is a *wonderful* actor. He does these skits every year at the Christmas party and can imitate different animals and do other things, so it was fascinating. I could never get any work done while he was telling stories to Patrick over the phone; I'd be listening to it. It was so touching.

We used to have briefings over at his house sometimes. I remember Patrick at about eight or nine years old, sitting on the arm of my armchair in his pajamas. Teddy had him there listening to everything, so he's had good training to become a Congressman. He also always had Ethel's kids running around his office when they were young and that was interesting. They all call him Teddy. They don't say "Uncle," they say "Teddy." They would say, "Teddy, you promised me" so much money or something. He had promised them money, and of course he didn't carry any money. If you happened to be the staff person standing there when the kids would ask for money, you were continually shelling out. He'd turn to whoever was there. People think the Kennedys were always handing out money, but actually, you were losing money by working for them.

Ted is an extremely generous person. He's very generous with this time and energy, his commitment and dedication, and his concern and compassion for others. But when it comes to

money, the Kennedy family was noted for their stinginess, as the following incident suggests. One morning I had driven to Ted's house in McLean to brief him and then drove into the office with him in his car. As I exited the building at the end of the day, I suddenly remembered I didn't have my car there. Just then a car emerged from the Senate underground parking lot, driven by Democratic Senator [William Dodd] Hathaway of Maine. I called out to him and asked whether he was going near Ted's residence in McLean, and he said, "Yes, hop in; I'll give you a lift." I explained to him how I had left my car at Ted's, as was frequently the case with many of his staff. Hathaway said he saw how that could cause some inconvenience, then paused and said: "By the way, how much does Ted charge for the parking?"

Another thing that was fascinating to me over at Ethel's house—this is more the Robert Kennedy side of things. Everywhere there were these pictures—in Teddy's house, too—pictures of Kennedys together doing things. When I would listen to the kids talk and watch how they dealt with it, to them Bobby was still alive. He was a living presence. For instance, one kid would be say something like "Daddy wouldn't want you to do that," even long after he was dead. When you grow up where the person is so much a part of history, and you see movies and photos of him, and you continually hear this, it gives a different context to the kids. Ted would frequently have picnics with his kids on the Capitol lawn when he was working late, in the good weather. I remember one time when Joe was in his teens and having his typical adolescent problems, and I had to stand up on the Capitol steps and signal to him for the votes while he would be standing down on the lawn talking to Joe. He'd come running up to do the vote, then go back to Joe again, because there were many votes in sequence.

One last mention of the kids that was so poignant. I had to brief him on some OTA matter once and he said, "I'm going to Teddy Junior's football game." He went to St. Albans and they were playing Sidwell Friends. We went over to the Sidwell Friends football field. Teddy was playing football there, we were watching him, and I was briefing Ted on this OTA issue while we were watching. We'd stop when Teddy Junior was making a play. One week later, from that day, Teddy Junior's leg was amputated. That's how fast it all happened.

**Knott:** Playing football one day and a week later—

**Mottur:** A week later. I was watching him play football, then a week later his leg was amputated. It was sheer luck the way that happened. There was a guy on Ted's staff by the name of Phil Caper. Phil was a medical doctor who was working on the Health Subcommittee. He was the one who designed the HMOs [Health Maintenance Organization] legislation. He's probably had some second thoughts about that, but at the time we thought it was very good. The problems that have arisen are some of the unintended consequences of legislation. Phil was working on the legislation, but he was a medical doctor.

To keep his hand in while he was on Teddy's staff, he served as the doctor for the extended Kennedy family: Ethel [Skakel Kennedy]'s kids and Ted's kids. He was their family doctor during this time. When Teddy Junior started complaining about the pain in his leg, Phil was the guy who first saw it. Fortunately, Phil had done a fellowship at the National Cancer Institute. It was only because of that, that he immediately thought of this cancer, which was so rare at that time that fewer than ten people a year would get it. No other doctor, except a specialist in that

field, and who happened to be right there, would have ever thought of it. Immediately they had experts fly in from all over the country, and that night they stayed up all night talking with these experts and amputated the next morning. That's what saved his life. It never would have happened if Phil hadn't been on the staff and been there. One week before, he was playing football. That's the kind of thing you witness when you've been with the Kennedys through the years.

**Knott:** Where do you think Senator Kennedy finds the strength to overcome this constant stream of adversity that he's experienced in his life?

**Mottur:** His religious faith. It has to be. His mother had this absolute, incredible religious faith. He doesn't talk about it. He'll never talk about things like that. He doesn't like to talk about his emotions and his feelings. I remember after a briefing I was at the house, and we were driving in to the office. It was some anniversary, and we stopped at Arlington Cemetery. He got out briefly and went to the gravesites, knelt there and prayed, then got back in the car and never said a word. We drove on. It has to be the religious faith. There's no other way you could cope with the sequence of things that happened. First Joe's brave wartime death, followed by Kathleen's accidental demise, then Jack was assassinated, then Bobby was assassinated, then his father died. Even though that was a lingering thing, it hit him terribly. His father was such a presence, even when he had the stroke, he was still such an awesome figure to Teddy, then he died. Then young Teddy gets his leg amputated and Joan goes off the deep end with her drinking. It never ended. It's incredible.

Let me go back to OTA. Creating a new analytical appendage to Congress was akin to organ transplantation in humans. It was, because there's a tendency to reject the new tissue. OTA had a very difficult time in the first few years in developing the structure of the staff and its relationship with Congressional committees. It was a completely new thing. The committees were the audience we had to deal with, and we had to then develop its reputation for nonpartisan objectivity.

The first director, Daddario, resigned in 1977, which led to an especially stormy period for the agency. Representative Marjorie Holt of Maryland, a Republican, was the vice chairman of the board. Kennedy was chairman in the Senate and she was the vice chairman from the other party in the House. She was contemplating a race in the Senate primary in Maryland against the Republican incumbent, Senator Mack [Charles] Mathias. What better way for her to gain publicity than to attack Ted Kennedy? She started a rumor that with Daddario's resignation, Kennedy was probably going to push his aide, Ellis Mottur, into the directorship and use the agency for nefarious political purposes.

The story got traction, with the press picking it up, and was highlighted by good old Bill Safire in the *New York Times*, who had two op-ed pieces about me and this thing in the *Times*. He had a great headline for it, "The Charles River Gang Returns." The Charles River Gang had three people in it: Ted Kennedy; Jerry Wiesner, who was then president of MIT and former science advisor to President Kennedy; and Ellis Mottur.

**Knott:** Not bad company.

**Mottur:** No, but it was horrible. I was at a party with Bill Safire years later at Melody Miller's house. I had never met him. I said, "Gosh, I'm so indebted to you." He said, "Why is that?" I said, "Well, because of you, I resigned from OTA, when you wrote those stories about me." Because of resigning there, I went through a sequence that led to my being in Bill Clinton's campaign, where I headed up his campaign with the business and high tech communities and showed the American people he was a different kind of Democrat. Clinton has always said, not only to me but publicly to many people, that that was the best single piece of work in the campaign, so it very much helped in getting him elected President. So I said to Safire: "*You* really helped get Bill Clinton elected President, by what you did to me." I don't think Safire appreciated that too much.

Anyway, Congresswoman Holt started this rumor and it got traction. Finally I wrote a letter to EMK that we published, unequivocally taking myself out of the running, but the attacks on Ted continued. We asked the National Academy of Science for all kinds of candidates to replace Daddario, and started vetting them. People wanted the job, but the ones who wanted it were never at the level that could do it, and the ones who were at the level to do it, didn't want it. We approached several public policy figures, first was John Sawhill, who considered it a bit, but then was offered the presidency of NYU [New York University] and figured that was a better deal. We then offered it to Dan Evans, who was president of Evergreen College in Washington State, and he didn't want to give that up. He was making some money on the side, which was good. (Then he later became a Senator. ) But he didn't want it.

I was sitting in the office with Ted and Eddie Martin, and I had never seen Ted like this on any other occasion. He's such an action figure, makes decisions and moves on, but this time he was totally flummoxed. He was being battered by the press day in and day out, that he wanted to use OTA for political purposes. It was so untrue and so absurd, and yet truth is frequently outflanked in public life. He didn't know what he could do. He did everything right, yet he was being battered. We were sitting there and he was just shaking his head. I said to him, "Look at the upside of it. You're getting so battered on this, that when historians look back on your career, they're going to know you couldn't have done this for political purposes, because you're way too smart a politician to get into this kind of mess otherwise. They'll say you were really a statesman, while being pilloried for being political. It will help you in the course of history." He said, "Thanks a lot. That really helps me to know that. Now figure something out and come back with a solution. We have to get out of this mess."

I gave a lot of thought to it and figured the only hope was to get a formerly prominent Republican figure to come in as director of OTA. I took a list of all former Republican Senators and Governors, looked through the list, and one of them, Russell Peterson, who had been Governor of Delaware, turned out to be a Ph.D. chemist who had headed up research for DuPont. I thought, *Hallelujah!* I checked him out, talked to various people, and no one told me the truth about him. In Washington, when you get to certain levels, people bounce you along. They want to get rid of you, but they don't tell the next person what you're really like, and we were desperate. We approached Peterson. To get him to accept the job, Kennedy offered him much more independent authority than Daddario had had, rather than Kennedy, as chairman, having so much control.

Peterson took over and the press attacks on Ted did cease. After I stayed there a few months to help with a successful transition, I submitted my resignation and left to become a guest scholar at the Woodrow Wilson International Center for Scholars, where I did a report to Congress titled *National Strategy for Technological Innovation*. After about a year, Peterson, who had rapidly managed to alienate all members of the Congressional board and the advisory council, not to mention many of the committee chairmen, resigned to become president of the World Wildlife Fund. He was a strong environmentalist, and now he could travel all around the world, do all these wonderful things, and pursue his hobby of bird watching. The guy was happy as a lark. Everyone was happy to get rid of him. But his tenure at OTA did stanch the bleeding, and it was crucial to have that.

The next time, the board found a winner in Dr. John Gibbons, who led OTA successfully for about 14 years, during which time OTA produced nearly 750 assessments and other documents, as well as hundreds of Congressional committee briefings and testimony. Of course, Kennedy stayed in his board role throughout this. Often in floor debate, members on both sides of an issue would cite OTA findings, demonstrating the office's credibility and reputation for nonpartisan objectivity. It tried to lay out everything dispassionately, both pros and cons, so people on both sides of an issue could use its findings. If that isn't proof of objectivity, I don't know what is. There was an article in the *Federal Times* that said, "In a town where unimpeachable sources are oh so hard to come by, OTA has managed to secure a position near the top of the list." It really did achieve what we wanted.

In 1993, on my recommendation, President Clinton appointed Gibbons Science Advisor to the President, and he left OTA. In 1995, Newt Gingrich, over strenuous objections from Kennedy and the other board members, including conservative Republicans like Ted Stevens, Orrin Hatch, and Chuck Grassley—Gingrich got OTA dissolved to show that—The purpose was not to knock OTA, but Gingrich was trying to get departments eliminated in the Executive Branch: Commerce, Education, Energy. He wanted to get them all eliminated, so he wanted to show that Congress could eliminate something of its own as an example. OTA was the easiest target compared to the Congressional Research Service, the General Accounting Office, and the Congressional Budget Office, which were the other three possibilities. It was a much easier thing to knock out OTA.

**Knott:** That's surprising, in a way, from Gingrich. He does have an interest in technology and futurism.

**Mottur:** Yes, absolutely. There was nothing substantive in what he did. He was intent on knocking out those government departments. He had to show something in return, sacrifice something, but that's why OTA got knocked out. The law still exists, but the appropriation ended, so he proved Congress could eliminate one of its own agencies.

After I left the Woodrow Wilson Center, I was doing private consulting, but I kept in contact with Kennedy as a friend and an advisor, and occasionally I'd be a paid consultant for some specific thing. But I was always giving him memos, being with him, and talking to him.

For example, a while ago, I got a call from somebody working for him who said, "Kennedy wanted me to call you because the Robert Kennedy Memorial has to make an award for courage. We're thinking of this scientist at NASA who does stuff on global warming, Jim Hansen." They wanted me to give a rundown on him. I gave a glowing rundown. In the end they chose somebody else from a different field. But I have had that kind of contact with memos and ideas and things going all the time.

In the '88 Presidential election, Ted recommended me to Dukakis. I went to California and headed up Dukakis's effort with aerospace and high-tech constituencies. I had an office in San Jose and lived in Silicon Valley. After the election, I returned to Kennedy's staff full time, where I wrote and worked to pass the Excellence in Mathematics, Science, and Engineering Education Act of 1990.

That was very interesting, again, as to how Ted worked in a bipartisan way. I was in a hearing on something to do with education before some other committee. The hearing hadn't started yet and Senator Mark Hatfield, the Oregon Republican, had come into the room. I sat down next to him and started chatting with him. He was going to testify. It became very clear to me his tremendous commitment to education; he really cared about this. Of course, we were very interested in getting going on some legislation on science and math education. I said to Hatfield, "I know Senator Kennedy would be extremely interested if you and he could collaborate on science education legislation." He said, "Oh, I'd love to do that." I got back to Ted and told him that Hatfield would be interested. Ted and I then met with Hatfield and his aide. We put through a piece of legislation that was enacted into law, the Excellence in Mathematics, Science, and Engineering Education Act of 1990. Again, it was a bipartisan thing, where he found an opportunity.

During this time, I was also his representative on the Democratic Taskforce on Defense Conversion, a reprise of the work we had done in the 1970s. That was a big thing again in the late 1980s.

I also kept advising him on OTA and other issues, but the main other thing I did for him during that period was to draft the High Skills, Competitive Workforce Act of 1991, which we couldn't get enacted, but which later became the basis of much of what Secretary Bob Reich, as Labor Secretary, did in the Clinton administration.

That was lucky for me, because in drafting that bill, I had an outside consultant, a lawyer who had served on the National Commission on the Skills of the American Workforce, and who was our principal consultant as to their findings to incorporate in this bill. Her name, of course, was Hillary [Rodham Clinton], and she invited me to a dinner meeting with Bill in the fall of 1991. I joined the campaign after that and moved to Little Rock, but it all happened because of Ted, because I was writing this bill for him. Incidentally, she's wonderful to work with.

During the campaign, I drafted Clinton's Defense Conversion Program, which was very crucial in the southern primaries, then I moved to Little Rock. I'd done the conversion program while I was still in Washington, then I moved to Little Rock and drafted his technology plan and manufacturing plan. I served as the campaign deputy political director with responsibility for the

high-tech and business communities. One of the biggest challenges of my career was convincing the Republican CEOs in Silicon Valley to endorse Clinton, then enlisting support from more than 700 CEOs nationally, showing the country that he was a different kind of Democrat.

I didn't have much specific contact with Ted during the Clinton campaign. I was working around the clock, but I had one wonderful moment. One day I got a big package in my office in Little Rock. I opened it up; mounted on a big board was a *Wall Street Journal* article dated September 24, 1992, with a few things underlined and circled, and with some inscribing on the side. The article talked about how Clinton had done a miraculous job of attracting businessman support for a Democrat, an unheard of thing in politics, and it cited Ellis Mottur as the staff person who had done this. Ted wrote in the margin, "I can't wait for the first 100 days. We'll pass the entire Mottur agenda. Well done. Ted Kennedy." It didn't quite work out like that, but it was such a nice thing for him to do. It shows the kind of wonderful guy he is.

I guess I probably ought to stop there. I do have some other good things to talk about, so I think it would be worth having another session.

**Knott:** Great.

**Mottur:** This was such great fun. I enjoyed it.

**Knott:** I'm glad. Thank you so much.

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