Morrisroe: We are here for the recorded interview for the Clinton Presidential History Project with Dr. Gibbons and Mr. Johns. I will say on the record what we discussed off, that you're familiar with the rules and procedures of the oral history interview. I want to point out that the interview is conducted under strict rules of confidentiality, that no one at the table is free to speak outside this room about the events that took place within, except yourselves as the interviewees. You're free, of course, to share that information with anyone you wish, but we will not until a transcript is cleared.

After the interview is conducted, in several months, you will receive a copy of the transcript itself, and at that time, you are free to make any changes to the transcript you wish—additions if there are things that come to mind after you leave here or areas you want to elaborate upon.

Gibbons: Sounds like the Congressional—

Morrisroe: That’s right. You can advise and extend your remarks to your heart’s content.

Gibbons: Rewrite history however you want it.

Morrisroe: That’s right. We’ll give you that luxury. Additionally, if you wish, at that point, you can make retractions or rescind any of the remarks. We’ll ask you to bear in mind when you receive the transcript, and throughout the course of the interview, that the audience for this is history, not just contemporary scholars but those 10, 20, 50 years from now who would be interested in the development of science and technology policy in the Clinton administration and in the institution of the Office of Science and Technology Policy.

So with that in mind, we’d hope you’d be as generous and forthcoming with your remarks as possible. If there are things that you wish to discuss that you would not want made public in the near future, you’re always free to close a portion of your remarks for any period of time. Or if you’re making comments about an individual, you can stipulate, for instance, that you want this section closed until they are deceased. Not that we encourage closing, but we’d rather have you be as candid as possible at the outset, with some limitations on its release later. In the end, I think that is a better service to the history of the institution, if you’re willing.
After the transcripts have been edited by you, they will be released with the entire Clinton Oral History Project at its conclusion, and they will be archived both here at the Miller Center and also at the Clinton Presidential Library, available to researchers. Any final questions before we jump in?

Gibbons: Sounds good.

Morrisroe: Before we get started, we’ll do a voice identification around the table. This will just aid the transcriptionist in identifying who is speaking. Cindy is also going to be taking notes to help in that regard. I’ll start—my name is Darby Morrisroe, I’m an Assistant Professor at the Presidential Oral History Program.

Martin: I’m Paul Martin, I’m an Assistant Professor in the Oral History Program as well.

Walcott: I’m Chuck Walcott, I’m Professor of Political Science at Virginia Tech.

Johns: I’m Lionel Skipwith Johns, Skip Johns. I was Associate Director for Technology in the Office of Science and Technology Policy in the first term of the Clinton administration.

Gibbons: I’m Jack Gibbons. My most recent full-time job was as Director of OSTP [Office of Science and Technology Policy] and Assistant to the President. I’ve done a number of other things since then, but none of them have been full time. And I’m happy to look back on the White House days, but also happy it’s over—it was an important experience, but it was enough. Five-and-a-half years is enough of anything.

Morrisroe: That will do. We like to start with a bit of personal biography, so if you could tell us how a doctor, a scientist, came to serve or be involved in politics, if you can give us some educational background and some of your early work before you came to work for Congress.

Gibbons: One of the features of most physicists is that they are very inquisitive about things they don’t know enough about. They also are intrigued by puzzles. If ever there was a puzzle, politics is a puzzle. I think democracy is one of the most complex endeavors ever undertaken by man. So I naturally drifted from doing basic research at Oak Ridge National Lab, in research into the origin of the elements, into areas of the technical and social problems associated with energy production and use.

Oak Ridge lies in the middle of the Appalachian coal fields. It was a nuclear energy lab. But I got interested on the demand side of energy, efficiency of use, because I saw that as a common means to ease a lot of energy problems. That work drew me into public policies and rules and regulations and the regulatory processes, and that just pulled me on in toward government.

In 1973 I became the director, under President [Richard] Nixon, the first Office of Energy Conservation. Within thirty days after I arrived in Washington, the Yom Kippur War broke out, and I was swept into not just the Executive Offices but into the Cabinet Room for enough meetings to give me a full introduction into the wily ways of political decision making. After a year and a half of serving in that office, I decided to re-enter university life and that if I ever
came back to Washington, it would be some other branch of Government. Sure enough, I got dragged back into Washington from university life to be the director of the relatively new Office of Technology Assessment, which I had come to know a little bit and I saw as an important element of helping Congress and the American people have better access to highly technical information as it relates to policy issues. That work continued far longer—fourteen years—than I expected.

When Clinton and [Albert] Gore were elected, they invited me to come down to the White House to be science advisor. In summary, I simply got on a slippery slope from basic science into I guess you would call it politics; I would just call it applied science. So much of our national issues of governance are deeply embedded with technology questions.

Morrisroe: No, you can never say more than you should in answers to our questions. We love that. I think we’ll want to talk a bit about your experience at the OTA [Office of Technology Assessment]. When you joined the OTA, it was undergoing some controversy and growing pains, or at least it had been a couple of years previous to your joining it. Can you tell us, first, how you came to that position and the challenges you were faced with when you jointed OTA, or that that institution faced at the time?

Gibbons: Sure. I was interested in OTA from its outset because it seemed to me it was a von himmel gefallen, as it were; it fell out of heaven in terms of needs for Congress. I was drawn in early on by this fellow on my right, Skip Johns, who was already working there, to help participate in some of their early studies.

For instance, the first one was, should a new Department of Energy (DOE) being considered have any part of it responsible for the demand side (conservation) rather than just supply? We did a quick study on that. In fact the charter by Congress was changed on account of that study. So I saw the potential for OTA to be a mechanism for Congress—through OTA, governed by a bipartisan, bicameral body—to ferret out the best of national wisdom and bring it in a timely way to Congress and the nation. I enjoyed doing that as a part-time sideline to my university position in Tennessee.

Soon I was approached about running OTA rather than serving on a panel. It reflected the fact that I had spent some years working on issues of science and technology in the national lab at Oak Ridge, in university life and at the National Academy of Sciences. So I was called to Washington to be interviewed for the job of Director of OTA. I went into a Senate hearing room, and there in front of me in a semi-circle were the twelve members of the Technology Assessment Board, powerful members of House and Senate.

It was sort of a closed-book exam. At the time, I had a sinus infection, so I couldn’t speak too clearly. Fortunately I could always blame my errors on my sinus infection. But about an hour of discussion I was enchanted with their questions, but I had no idea what would happen next. A few days later, I was in the dentist’s chair back in Oak Ridge. The phone rang and they brought it over to me. They said, “Senator [Edward] Kennedy is on the phone.” No, it wasn’t Senator Kennedy; it was John Seigenthaler, who was the editor of the Nashville Tennessean. Seigenthaler said, “Someone wants to talk to you about your situation in Washington.” And he patched in and
got Senator Kennedy on the line. Kennedy said, “Congratulations, Jack.” I said, “For what?” He said, “You’re the next Director of OTA.” Later, my claim was that I had all this Novocain in my mouth and I was speechless because of that. Therefore he took my silence as a yes.

Anyhow, I quickly went to Washington to take up the banner there. What I thought was going to be just a few years of interesting work ended up fourteen years. They came after me because I had a background in science. I had done applied work in environment and energy. I had had enough experience with OTA that I might be a good director.

When they held a swearing in ceremony, about two weeks later, it was in the Capitol Building. The middle of the Capitol Building, the dead center of the Capitol, between House and Senate, is a room called EF-100. It’s a favorite room because it’s a place where both parties and both houses find their common ground.

**Johns:** That’s where we held our board meetings.

**Gibbons:** That’s where the board meetings were held, ceremoniously. John Dingell, who was a member of the board, came up to congratulate me at the end of the ceremony and said, “Jack, I want you to know that I look forward to working with you. As long as you do the right thing, I’ll be right behind you. I won’t let you get away with anything that’s not right.” That’s typical Dingell. He said, “I also want to tell you that you’re the last chance OTA has to survive.”

I was somewhat taken aback. Skip hadn’t yet warned me about problems. Any new organization that has even the potential of political importance, that is suddenly introduced into a very sensitively balanced condition such as a Parliament or a Congress is immediately suspect from all sides. OTA had been immediately suspected and tested. One prior director—this is [Emilio] Daddario—told me later that he had predicted that the gestation period for OTA would be about six or eight years, and he was pleased to report to me that it had been about that long.

Anyhow, I enjoyed the company of these twelve members of Congress. I enjoyed the fledgling staff of OTA and the opportunity to try to use our capability to gather national wisdom and package it, illuminate the issues, provide options of how one might respond to these issues, and then deliver that effectively to the Congress—and not only to the Congress but to the American people to help raise awareness of technology issues. The work was consuming. It was, I believe, important. There were a lot of shortcomings, I’m sure, but that was my second introduction to full-time politics. Before that I had run an Office of Energy Conservation under President Nixon and had mostly enjoyed that.

**Johns:** Let me add a point, if I may.

**Gibbons:** I’m sorry. I’m talking too long.

**Johns:** No, it’s just, I’m listening and you’re talking, and so there are a couple of points that are important: First of all, not only did OTA have a board that represented both Republicans and Democrats, but the Chairman and Vice Chairman shifted House to Senate every two years to assure you didn’t serve either a single party or a single House of Congress. So the names that
Jack has mentioned, two Democratic names, in Dingell and Kennedy, but in point of fact, Orrin Hatch, not noted as a liberal Republican, and others in the House equally conservative, I think—was [Clarence] Miller the Vice Chairman at that time?

Gibbons: Yes.

Johns: The board bent over backwards to try to not exercise their political strength or clout. So they had, in effect, dropped their jackets when they were in the room. It wasn’t that they wouldn’t from time to time argue points of view that you would associate with their party’s point of view, but they never attempted to arm twist across party lines. It’s important, because at that time, Kennedy was possibly going to run for President, and so there were accusations that OTA might be his silent strategic organization—not true. There were accusations, because the Democrats had dominated the leadership for so many years, that it was a Democratic institution. In point of fact, Jack—he can edit this out—was a closet Republican, as was I. However, we were not—I wasn’t, and I don’t think you were—politically active any time prior to that.

Gibbons: Correct.

Johns: What Jack brought was his value, understanding OTA, because I’d been there virtually since its inception. He was someone who was willing to let the chips fall where they may, who was a true scientist in the sense of curiosity and inquisitiveness, willing to pursue and take the answers that evidence provided. There wasn’t an ounce of ideologue in his body, and that’s what it took to do OTA right.

In effect you had to say to yourself, I’m going to analyze this. I know what I think. I’m going to cause this to be analyzed by all the points of view, and when we get it all together, I’m going to take the answer that it comes up with as the most sensible thing, and I’ll accept that rather than go in attempting to prove a point of view. But I’m not going to trust myself to do that. When I say “myself,” I mean the staff of OTA running a project or a division or the whole place. I’m going to take it the way the chips fall. Then I’m going to describe what the choices are. That if you have this perspective, this is the virtue of that, and these are the problems you would get with a policy if you made that choice. This is the alternative. If you have a point of view, let’s say, of government being active, here are the problems with that, and here are the problems you would have to solve in order to get the benefits that way.

We considered our measure of success when the floor of the Congress would have a very intelligent debate where both sides of the arguments were using our reports. That told you that that was the ultimate service. When we finished the report and each side or point of view from the advisory panels felt like we had slightly favored the other side, we knew we had it right.

Gibbons: I asked one member of the board one day, I said, “There’s been a debate on this issue in the House, and the leaders of both sides of the debate were quoting from our report. What good did that do?” Mr. Dingell said, “Well, you’ve raised the level of the debate. You have focused and narrowed the level of the debate, which is your job.” So I felt justified.
OTA was an interesting experience. We could spend more time on that if you’d like. Also, thinking about the Clinton administration, it was also a great learning experience for me. I don’t know how people can be successful Presidential science advisors—in the broader sense of the word, science and technology—without having some kind experiences like that in their background.

Some people were surprised when my name came up and I was approached by Clinton and Gore in 1992, because I had been out of an academic setting for several years. Most of my career had been spent at a national laboratory. And they looked a little askance at someone not a pure academician coming to Congress to do this kind of advisory work. I honestly don’t know how I could have done the work in the White House had I not had that side track from a physicist career.

Martin: A follow up on your earlier comment about raising the debate within the House. From your point of view, and looking at members of Congress and members of the Senate that you were dealing with, what would you assess their scientific literacy rate or their real understanding of what you were trying to tell them?

Johns: Not education, but knowledge.

Martin: You raised this point earlier where you commented about, in a democracy, especially an advanced democracy like ours, most of these decisions are technical decisions. And the literacy of policymakers on science, making these votes, or making debates within the House or the Senate, to know what they’re talking about seems to be a critical element. From your point of view, were there certain members who really seemed to know what they were talking about, who were well versed in the science and technology they were dealing with?

Gibbons: There were certain board members who were literate technically, but only a few. I think Ted Stevens is pretty literate, so was Jake [Edwin] Garn, so was John Dingell. They all have a degree of technical literacy, in part because they’re almost self-selecting. See, that board was appointed by the leadership of the House and Senate, and the leadership tried to reflect the right balance from this perspective. But at the same time, if the member wasn’t interested in serving on the board, he wasn’t likely to be approached. Others wanted to serve on the board but were too junior in terms of their time in Congress. Al Gore wanted to be on the assessment board, but the leadership said, “You’re a freshman Congressman. There’s no opportunity for you on this.”

I think the citizen governors we have in the Congress are charged with responsibilities that far transcend their formal training. They have to learn as they go. They have to learn how to listen and then form their opinions and then act on that basis. It’s easy to get opinions from every stakeholder, and there are a lot of stakeholders in that town. The issue is sorting out the essential from the nonessential when you’re trying to come to a position. So they need some help. Our job was to try to help them see how this science and technology fitted into the decisions they were trying to make. But they’re also like what Victor Hugo once said, namely that, “Science has the first word on everything and the last word on nothing.” That underscores the importance of science, but also the issue is embedded in a much more complex decision making process.
So I don’t worry that we don’t have a lot of scientists and engineers in the Congress. What’s important is we have people who understand the importance of science and technology in the policy decisions they’re trying to make and are smart enough to ferret out some thoughtful analyses that are trustworthy and comprehensive. Our job at OTA was to sort the wheat from the chaff and to focus the discussion for the members into a layperson’s understanding of the issue and of the options that Congress has to deal with that issue.

To do that analysis, we have to bring in all kinds of people from outside OTA. OTA was a convening place for stakeholders from all around the country. Now, if you brought those stakeholders in front of a Congressional hearing, you would hear this particular position being made and that position being made but no one who had tried to say, “Get beyond a self-interest position and look at the whole interest.” Our job was to try to take all these voices and reduce them to a manageable discussion of the issues that was removed from special pleading. I think we worked fairly well.

I remember one day we were delivering a report on coal. One member asked me to come see him. I went over and he said, “This is a terribly biased report. I just don’t accept it at all.” I said, “What do you mean?” He said, “Well, look at your advisory committee here in the front. You had a member of the Sierra Club on this advisory panel.” I said, “Yes, but here’s the National Coal Association, and other stakeholders.” That didn’t matter to him. The fact is, the Sierra Club had been one of the groups on the advisory panel, and the Congressman therefore thought it was biased and not acceptable. So it’s that predisposition that we have to struggle with all the time. I’ve spoken long enough. You want to fill in, Skip?

**Johns:** I’d like to add just a couple of points, if I may. One is, in answer to your question on the technical side, less than two percent had formal education, but as Jack says, many of these members—if you’re a Dingell and you come from Detroit, then you are going to be elected by people who give a damn about the auto industry, and you’re going to learn about and know about the auto industry, including the technical aspects of that. The lack of formal education is much less a problem than the increasing number of people who are ideologues, who know the answer and don't give a damn about what the facts are—I mean people who have come in in the past few years who are proud about what they didn’t know and resented anybody who wanted to provide real data to these people. They were afraid it would make them less pure, so to speak. In the end, that was a large problem of why some people felt that OTA was disposable. They didn’t need facts; they already knew the answers—a serious problem.

**Walcott:** You said something fascinating when you said the experience at OTA prepared you to work in the White House. I think you were getting at some of the senses in which that was true. I mean, we are hearing so much now about the problems of speaking truth to power and crafting advice and intelligence to suit the decision makers. Could you tell us in more detail, what was it about the work you did in Congress that informed you about the political process and made you therefore more effective as a science advisor?

**Gibbons:** The whole notion of OTA is not to be “spotlights” but “floodlights on issues,” namely to fully illuminate them from very diverse perspectives. If we missed a perspective, we could
mislead the Congress—so to broaden our scope of these issues, to bring in people from outside
the science and technology community, but people who were very much interested in and
concerned about the implications of these things. So that was one big preparation. How do you
define the appropriate panel of judges to look at what you’re doing and tell you whether you’re
making sense or not?

The other thing was, how does Congress work? You have to almost be on the inside to come to
understand that. I always professed while I was there that I knew very little about politics, which
was true. Members were more forgiving and they would say, “Gibbons is a physicist. He can’t be
expected to know all these subtleties.” But that innocence did give me a chance to understand the
processes of Congress and therefore how they interact with the executive branch.

We became so trusted that Congress assigned us new responsibilities, for example, the
appointment of commissions, especially in the health area. They required OTA to actually make
the appointments; and they simply confirmed them. Appointments to the Prospective Payment
Commission, the Physician Reimbursement Commission, and others all came to OTA, because
Congress came to trust our methods, procedures, and expertise. That was a mark of honor for us,
I think.

OTA did prepare me to understand what goes on in Washington. I have to confess to you, I still
don’t understand politics. I don’t mind working for politicians, but I would never be able to
become one, because it’s a very special breed of person who can put his personal analysis of the
reality of a situation together with the fact that he has to take a lot more into account. It’s like
what Victor Hugo said. You have to take a lot more into account than the issue itself when
you’re voting.

I think getting along with people who have very different ideological perspectives is vital. How
can you listen and understand folks when they’re coming at you with what seem to be crazy
ideas or crazy thoughts? That’s important, because in the White House, as well as in the
Congress, you’re dealing with Americans, and Americans have very different perspectives. If
you don’t understand and appreciate that, and if you can’t listen carefully to what they’re saying,
then you may miss and therefore be of too little value.

Third, I think, is the organization of Government itself. It’s a complex business, and its
relationship to state governments, its setting in the international sphere, which was a very
important part of our job in the White House. These are things that you can’t learn in the
classroom very well. You have to experience it. Not in prospect—I had not thought of going to
the White House—but in retrospect, it was an invaluable learning experience.

I called up the president of the University of Tennessee after I’d been at OTA for some time, and
said, “I could never pay the tuition for the training and experience and education I’m getting here
inside Government.” It’s true. When they approached me from the White House about being
science advisor to Clinton and Gore, I thought of two things: one is, I admired both men, as I still
do. The other is, this gives me an opportunity to use some of the things I’ve learned at OTA as
almost a training ground.
**Morrisroe:** Did you have occasion during your tenure, or maybe even before, given your service as director of the laboratory in Tennessee, to work with Gore and his staff on issues of science and technology?

**Gibbons:** I worked a little bit with Gore’s father, because I worked with the Nobel Prize winner Eugene Wigner, who was interested in ballistic missiles and nuclear weapons and civil defense and that sort of thing. I spent a little over a year at Oak Ridge with Wigner.

One day Wigner wanted me to go with him to Washington to visit Senator [Albert] Gore, Sr. We found our way to his office, sat down with him, and Senator Gore said, “Professor Wigner, I’m very happy you’re here. I’m delighted to meet you. Now, just what is your problem?” Wigner tried to describe his concern about inattentiveness to civil defense. Then Gore said a very key point—I can hear his voice now—he said, “Dr. Wigner, that’s very interesting. Now, just what is it you want me to do?” Wigner had no answer. He wanted to tell him about his problem or his frustration, but he had no suggestions about what the Senator should do or could do. That was a very important lesson in preparation—think about what you’re saying in terms of what the person you’re talking with is hoping to get from you. Well, that was just a sideline.

But anyhow, I met Al when he was a freshman Congressman. He was immensely interested in OTA, reflecting his intense interest in science and technology. He was our favorite consumer of our reports and documents and hearings and everything else. I remember, one time he released our first study on global climate change. I was with him when he made that release and gave an introduction to the issue. It was clear to me that he already understood that work better than I did at that point.

**Morrisroe:** What year was it that this report came out?

**Gibbons:** The middle ’80s, I guess. Then I investigated Al Gore a little bit, and I found out that while he was a political science major at Harvard, he took a course from Roger Revelle, who was an oceanographer and demographer, a scientist of some renown.

**Johns:** A political oceanographer. [laughs]

**Gibbons:** Maybe so. Part of Revelle’s class work was to track what’s happening to the CO2 concentration in the Earth’s atmosphere. Al caught fire in terms of interest in climate and science. Ever since that time, he has followed science intimately and carefully. We used to organize breakfast meetings for him in the old Cabinet Room in the old Executive Office Building. We’d get one or another leading scientist to be our guest to meet and have breakfast and talk. The talk was mostly Gore and the visitor. We listened and chimed in from time to time. Without exception Gore overstayed his time. His office kept running over saying, “You’re late for everything,” and he still wouldn’t leave, he was so fascinated with science.

**Morrisroe:** Was he unique among members of Congress in terms of his level of interest?

**Gibbons:** Almost. His interest was intense. There are other people. Rush Holt, for instance, is a Ph.D. physicist. Vern Ehlers is a—
**Walcott:** But he wasn’t in Congress.

**Gibbons:** He wasn’t in Congress at that point (Vern Ehlers was a physics teacher up in Minnesota before he was elected.) But there were few members who had a more consistent and intense interest in science and technology. It was for this reason, among others, that I think Clinton chose him to be a running mate. When Clinton was elected, he had already decided that Gore ought to be his main man for science and technology, in domestic as well as foreign affairs.

I had two champions: Clinton’s interest and Gore’s deep knowledge and interest. Gore was not competition to me; he was one of my champions.

**Morrisroe:** From your position at OTA—you served there during at least part of three administrations; I guess you came in during the very end of the [Jimmy] Carter administration—you’re in a unique vantage point, then, to view executive branch science and technology policymaking. How would you assess or compare the Carter, [Ronald] Reagan, [George H.W.] Bush science advising of the President? And related to that, what was your assessment of the Office of Science and Technology Policy during those periods? It’s a big question, so take however long you wish.

**Gibbons:** I hadn’t really thought about it that much. When I came to OTA, of course, Frank Press was science advisor to Carter. Then when Reagan came in, they had to search for some time to find a science advisor for him. It was not a person of stature like Frank Press was. It was a young physicist from Los Alamos, Jay [George] Keyworth, who I understood was something like thirteenth on the list of people they’d considered.

**Johns:** He should have been thirty-fifth.

**Gibbons:** Keyworth reminded me a little bit of the person who says, “He’s very certain about things that are a matter of opinion.” My encounter with Keyworth was not encouraging, because he was representing the arguments for strategic defense initiatives (SDI), space-based missile intercepts (“Star Wars”). As it turned out later, I found out that Keyworth was not a part of that decisionmaking; he simply was given the job of trying to defend it.

**Johns:** Actually Reagan was personally sold by Edward Teller.

**Gibbons:** Yet Teller was a champion of Keyworth’s, so I don’t know.

**Johns:** When we shot SDI down early on, saying, “You should spend the money for research but not development”—this is at OTA—nobody knew how to build one, because they wanted to move ahead and build something they didn’t even know how to design.

**Gibbons:** Teller had misrepresented tragically and I think purposefully the promise of x-ray laser weapons in space, around which he built his whole argument for SDI. Skip helped lead that analysis at OTA. So we went to work on that question during Reagan’s term while we were at OTA. We got some excellent people to work with us on it. Our first little report, however
modest, was taken as a dagger in the heart of Reagan’s dream. When [Newton] Gingrich et al. wiped OTA out back in the early ’90s, the actions were labeled by some as “Reagan’s revenge.”

OTA had a choice early on of whether it should be cautious and do only those things that would be legitimate but not attract too much attention. We had a choice to make. I said, “We have to do what’s right.” Mark Twain once said, “Always do the right thing. It will gratify some people and astonish the rest of them.” But we chose to assess what we felt was important and needed by the Congress and by the American people. Our work on SDI was in no small measure part of the action behind the demise of OTA. I don’t regret that OTA was lost for those reasons.

**Johns:** But we saved millions of dollars across a wide range of programs by keeping them from doing the sorts of things that were premature or a little crazy. We didn’t do that by setting out to do it. We just gave them the facts, the evidence, and what we knew—what was known, I should say—at the time. Congress had the wisdom to say, “Let’s not spend that way.” I literally mean billions. I think of the synfuels program the Air Force wanted to build, $64 billion.

**Gibbons:** And the hundred-billion-dollar coal—

**Johns:** And the MX [missile experimental] on the trains, which DoD [Department of Defense] read our report and then canceled the program because we showed its vulnerabilities that hadn’t been shown to them.

**Gibbons:** One of the problems OTA had was we didn’t understand publicity, and we weren’t seeking it either.

**Johns:** It was publicity for OTA, politically dangerous.

**Martin:** Did you have any Republican champions at the time?

**Gibbons:** Oh yes. Orrin Hatch was a champion. One of our greatest champions of all was Amo [Amory] Houghton, who tried desperately in the years following the demise of OTA to reestablish it, until he retired this past session.

**Johns:** And to keep it from being demised, so to speak, he fought for that.

**Walcott:** Was the relationship between OTA and the Reagan administration then primarily oppositional? Were you mainly just shooting down bad ideas?

**Gibbons:** I’d say, on balance, we were a rear-guard action on a lot of crazy things, such as the Star Wars stuff.

**Johns:** I think we supported some things too. And I say that because I’m confident that we did, because we didn’t set out to do otherwise. You can’t not have some good ideas.

**Gibbons:** The issue of shipping natural gas from Russia to Europe, and the construction of pipelines with U.S. equipment being offered for sale, was an issue between OTA and the White
House ultimately, because a “neocon” defense named Richard Perle said, “Russia should not be sending gas to Western Europe. That’s too dangerous for Western Europe. We ought to be sending them coal from the United States instead”—whereas we were importing coal from Poland at the time. That issue got us in a little bit of hot water, but it turned out that our report was delivered at a time, fortuitous time, to make a major influence on the decision in Western Europe to import Russian gas. Because of Perle’s and others’ objection to the whole idea, all the contracts for pipeline-laying equipment and the like went to Japan, who was happy to supply them.

**Johns:** Jack, wasn’t that a time also when we started cooperating with Russia to help protect their loose nukes, so to speak?

**Gibbons:** I guess it probably was at that time. It was near the tail end of Reagan and beginning of Bush. We pointed out the imperative to improve security of nuclear weapons and nuclear materials.

**Johns:** This is the physical protection of them. They were behind rusty fences all over the Soviet Union.

**Morrisroe:** For those trying to understand the advisory networks in science and technology for Presidents, while you were at OTA, how did you view the White House science advisor versus the Director of the Office of Science and Technology Policy? Did you view the White House during Reagan and Bush administrations as—are those offices, are the individual and the OSTP Director and science advisor, typically who is not part of OSTP and part of the White House staff, do they work in tandem? Did you work individually with each one? So when you say you’re working with the White House on a particular issue, was that OSTP, or was that the President’s White House science advisor?

**Gibbons:** That’s like the argument, is a zebra a white horse with black stripes or a black horse with white stripes?

**Johns:** Exactly right.

**Gibbons:** It’s a tricky road to walk, but it’s one that Congress never misunderstood: namely that if I was called upon by Congress at the White House to testify on this or that, I wore my hat as Director of the Office of Science and Technology Policy. But they never asked me to come up as the President’s science advisor, because that was a Presidential appointment. I guess I could have gone, but only if I felt and the President felt it was appropriate. They never asked me to do that. They always treated me only as the OSTP Director.

**Morrisroe:** As policymakers, or in the Congressional branch, what were your views of OSTP during those administrations? Did you think OSTP’s operations were effective? Were there lessons, either good or bad, you learned from certain directors of OSTP that you brought with you when you became director?

**Walcott:** Or was it simply political?
**Johns:** If I can make a point, the OTA was Congress’s advisors. And generally speaking, national policy from a Congressional point of view, if OTA was involved, it was a complex issue, meaning that there were a lot of people who cared, there were a lot of players involved, and the perspective was longer. The science advisor was the advisor to the President, and OSTP had the responsibility of coordinating the President’s policy. Occasionally we would send reports that we had done at OTA to OSTP, in hopes that they would use that to back up the support or whatever with regard to the policies of the President at the time. There’s no reason, from the way our reports were written, that they couldn’t use those as very useful background for the here-and-now policies that a President tends to look at.

The big difference—and this is just an intro for Jack—generally speaking, the Office of Science and Technology Policy was led by somebody who had the respect of the scientific community and therefore trusted to be driven by science and the facts rather than political considerations, though it would almost always be somebody who was in broad political agreement with the President being served. The true exception to that was George Keyworth, who, like a carpenter trained in nuclear physics, all he really cared about was pushing SDI [Strategic Defense Initiative] and an aggressive point of view of nuclear weapons. At least that’s my perception.

**Gibbons:** And Keyworth’s successor, Bill Graham, was from the defense community; their focus was basically military.

**Johns:** Defense R & D [research and development].

**Gibbons:** That’s where much of this science advice to the President started, of course: during the Cold War, with Jerry [Jerome] Wiesner and others. Their job from morning till night was to help the President wrestle with nuclear weapons and the live prospect of a war with Russia and the calamities that could follow.

Under Clinton and Gore, our job was much broader. The Cold War was dissipating, and the enormous new challenge was where do we go from here, and how does science and technology become the mechanism, the lever, the engine, to pull our economy in a good direction in terms of national goals such as the economy, health, environment, security, all these issues? So it was a marked change in focus of the office between the Reagan years and partially in the Bush years. But Bush was a transition between Reagan and Clinton—Bush one. So we had, in a sense, a much larger plate to eat from, or to consume, than did our predecessors. That reflected, in turn, the priorities of the President and his people.

If you look at the office now, it’s very different, because [John] Marburger, again a physicist—don’t ask me why physicist, but it always turns out to be a physicist—is interested in pure science, and his measure of the success of his office was what was happening to the science part of the budget. That was seemingly the extent of the frame of reference. My argument about that was that yes, the budget has gone up under Mr. Marburger, but so has the deficit. What we did was get the budget up, or at least kept it even, while we were cutting the day-to-day side of the deficit. So it was a different orientation towards the responsibility of the office to get more out of what you have rather than simply adding to the national debt.
We were drawn more broadly into the economy, which meant we had an enormous amount of activity interacting with Health and Human Services, with the Department of Energy, with EPA [Environmental Protection Agency], with NASA [National Aeronautics and Space Administration], with all the other non-defense agencies, even though we had frequent interaction with the Department of Defense. So the role of OSTP under Clinton was to move the traditional focus of defense orientation and the nuclear business to a much broader agenda. Do you think so?

**Johns:** Absolutely. First of all, we had 45 years of defense priority because of the nature of the Cold War. So the question for what was facing the nation was—and remember, Japan was really dominating the competitive marketplace—we had to move towards global competitiveness, and we needed science and technology driven by that science to keep us competitive in the marketplace. It wasn’t going to be how little we paid our workers.

So the question was how do you take a wonderful national laboratory system, with many brilliant scientists of all descriptions, and refocus 45 years of priority for defense into a competitiveness-driven role while sustaining the national defense needs? The second part of that was how do you get these stovepipes talking to each other and helping? For example, what NASA spills on its way to the bank is what NOAA [National Oceanic and Atmospheric Administration] gets with regard to their environmental-measurement programs to understand the changes in the environment better. NASA has made, since, major contributions.

We had a devil of a time to get NOAA to be willing to talk, because they thought NASA was going to steal their marketplace. That’s just very typical of what was taking place. So we set up a structure that forced senior-level people from these various labs, or agencies responsible for the labs, to meet on a very regular basis to get to know each other as humans and try to get the stovepipes turned down. We also wanted very much to have a lab recognize that if it was making a significant research discovery that had application in technology, that they hadn’t really succeeded if they hadn’t communicated that to those who could take advantage of it in the marketplace, so that industry could capitalize on those discoveries in order to contribute to our overall competitiveness. That was a very important strategic drive.

Environment was another, and in many ways for a similar reason, the self interest of the fact that if you pursue green technologies, these opportunities are going to open world markets for you and be a major growth area for the future. That was one of the key reasons for Partnership for a New Generation of Vehicles. The Japanese had wiped us out in the marketplace because Detroit was convinced that everybody was going to go back to 5,000-pound automobiles.

This Partnership for a New Generation of Vehicles, dedicated to a 70-mile-per-gallon car that performed like a Taurus, forced the industry to make R & D investments that were over their horizon. The auto industry was making shorter term investments—by virtue of doing that, forcing them to realize that the technologies were a lot closer to the marketplace than they were. I would argue that you have hybrids today being built in Detroit, even though applied to the high end—the SUVs [Sport Utility Vehicle] and what have you—they wouldn’t even have those hybrids if Partnership for a New Generation of Vehicles hadn’t taken place.
Martin: Can we back up just a bit? This whole transition seems fundamental to the agency and to the shop. We jumped over your getting into the Clinton administration. It strikes me that there is some framing and architectural details to how to do this transition. Who gets the credit for some of these moves? What are your initial conversations with the Clinton/Gore administration when you’re getting brought on? Can you give us a little bit of that background?

Gibbons: Sure. Incidentally let me mention, the papers out of OSTP and of OTA, my papers, are at the Library of Congress and accessible in the archives. My ex-assistant helped put the papers together, so there’s some coherence to them. But if you’re ever interested, they’re there.

The interest in Clinton and Gore came about just at the time I was thinking, Gee, I’ve been at OTA for almost 14 years, and no one had been director for more than three years before that. I ought to be moving on. I think renewal is the movement of people and ideas through a place, not their long-term stay. So I’d pretty much decided I was either going to go back to university life or do something different when Clinton and Gore got elected.

People began to ask, “Who ought to be the science advisor?” Yes, there was a long list about who ought to be candidates for science advisor to the President, including a list furnished by the National Academy of Sciences and others to the new administration. Apparently I was not on any of those lists. Somehow the word filtered its way to Gore’s office, I presume. I think you probably had something to do with it, Skip, although we’ve never talked about it.

Johns: Dingell’s office.

Gibbons: Dingell’s office, okay. So it was planted up on the Hill. I will not name names, but it worked its way downtown, and then I was approached by the transition team about sending them some material. So I had to send all the stuff I had written or was responsible for having written. Boxes of papers went down to this poor transition team. This was in November 1992.

Morrisroe: Do you recall who was doing science and technology transition for the administration?


Johns: But Gore was the one who really fought for Jack, because he knew Jack well enough to know that this was the right kind of mind.

Gibbons: The closer we got to December, the more it seemed that I was getting onto a diminishingly short list. Finally in the middle of November, I was contacted about interest. You don’t say no to a new President. It was the 17th of December, finally, that Warren Christopher, who was playing a personnel man at that point, gave me a call over at OTA. He said, “You have an interesting background. We’d like for you to come on out to Little Rock and have a talk with the President-elect.” I gulped and said, “Why, sure.”
So I went out. I had to make an excuse not to be at an OTA gathering-of-all-hands for some reason. I think I feigned that I was ill that day, and I sneaked on out to Little Rock and met with the President-elect. That was a fascinating hour. That interview doubly convinced me that if he wanted me to serve, I would. I can tell you more about that in a few minutes. But we ended up shaking hands and I said, “It’s very nice to see you again,” because I had met him way back when he was on the National Governors Conference.

Then they called me on the 23rd of December. This is Warren Christopher again saying, “Could you come on out to Little Rock on Christmas Eve? We’d like to announce you as the President’s science advisor.” I said, “Well, what does that mean in terms of, are you offering an Assistant-to-the-President level as Al [Allan] Bromley was under Bush one?” And other key questions about it. He said, “Yes, we’ll work that out.” He was very obliging. I didn’t make him sign anything, but he clearly understood that I felt the importance of the job was immense and that it needed the kind of position in the White House that would give me needed standing to properly serve the President.

So I went on out to Little Rock. I remember flying out via Charlotte in a terrible wind storm, rain storm. I was sitting in the Charlotte airport writing my very short acceptance speech. To cycle ahead a little bit, later I was talking with Bruce Babbitt and I said, “You know, Bruce, I was having to write this speech in the airport on my way out, it was so sudden.” Bruce said, “That’s nothing. I wrote my acceptance speech about that same time, but then it was for a different job than they earlier offered me!”

Little Rock was a joyous occasion. We met at the Governor’s house. Hillary [Clinton] and Bill were both there, and Al and Tipper [Gore]. And the Cabinet-to-be was assembled. We had a long discussion about issues. Hillary was clearly an active player in that out-of-sight scene. I enjoyed getting to know her a little better too. Then the next day, Christmas Eve, the President announced his appointments.

The whole thing was a gathering race, starting with the inquiring about my background. Then they wanted all my publications, and I knew they were getting serious. Then I did a little bit of talking downtown to the transition team, but it was mainly my conversation with the President at the Governor’s house.

Morrisroe: Can you tell us about that?

Gibbons: Sure. My first impression, it was just the two of us in the room, which was nice. He had no notes. I didn’t dare take any notes in with me. But he opened up by talking about his concern for a lot of issues and the relationship of those issues to things we had worked on at OTA—I mean obvious environmental issues, national economy issues, national security issues, health issues. He had already seen a number of OTA’s reports and had read significant portions of them. The man is so fast at going through stuff. But he was clearly knowledgeable in substance with what I had been doing at OTA.

Morrisroe: Did that level of background knowledge surprise you?
Gibbons: Yes. I was always surprised by this extraordinary person. We talked about what ought to happen in the office of Assistant to the President. I told him I thought it ought to be an activist’s office, that we ought to be seen as the place where issues get pulled together across the agencies. That approach resulted six months later in President Clinton’s formation of the National Science and Technology Council, which still exists, and other mechanisms for integrating across the agencies of Government in a more effective way. I talked about using Presidential initiatives to draw the nation’s attention to issues such as infectious diseases, other things like that that could be forerunners to legislation or to appropriations.

I left the Governor’s house not knowing whether he was going to offer me the job or not. I didn’t want to ask him, and he didn’t volunteer to tell me at that point. But it was just 24 hours later that Warren Christopher called me and said, “When can you start?”

Morrisroe: You mentioned before a couple of points about wanting to be assistant at the President level, and you said some other organizational aspects. Can you flesh that out a little bit for us about what you thought you would need in that job to be effective in terms of stature and in terms of the office?

Johns: Or making the job worth having.

Gibbons: One was accessibility. I don’t abuse accessibility, but I’m going to need it from time to time. I generally work in a way that is most effective for my boss: namely, I try to use written communications as much as possible. But he agreed he would be accessible whenever I really felt like I needed it personally. Second, I said that we needed a mechanism to create what turned out to be the National Science and Technology Council. He agreed in principle. It took us about six months to put it together, but that has endured.

Third was to reestablish the President’s Committee of Advisors on Science and Technology but to expand it beyond academicians to include key people in industry and public interest. And he agreed to that. It took quite a while to put that list together, but he agreed to that. I needed to be, as Bromley was, named as Assistant to the President, because that raised my position to a policy level within the White House. It had not been that way before Bromley persuaded Bush to do it. I think that was a key move, and Clinton agreed to it right away.

What else? I said, “I’d like to come to you from time to time with proposed initiatives,” and that turned out to be the Partnership for a New Generation of Vehicles and a number of these other things—all of which, without exception, he accepted and supported. I knew that he was interested in science and technology as a principle, fundamental means of achieving overarching national goals. Therefore he was going to be supportive. He was not the kind of leader who was going to try to be looking over my shoulder all the time. He would be supportive. That’s all I needed.

I told him that there were a few people I’d like to bring on board. The only person I actually went up to him—this was after January ’93—I went up to him and I said, “We’ve got a few people around I’d like to keep at OSTP and some others we need to seek out. But I have one that I’d like your permission to bring on board to be one of the associate directors (subject to Senate
confirmation.)” I mentioned Skip’s name and told him his background. He said, “If Al Gore says okay, we’ll do it.” I think that’s the only appointment I ever tried to totally bypass the personnel office on. You don’t do that very often.

**Morrisroe:** You were successful, so apparently it worked out.

**Gibbons:** It worked out well. But that was an interesting early time. You see, the great advantage was I came into the White House along with the President, basically. I was confirmed within 30 days of the President’s swearing in.

**Johns:** Which is amazing for a science advisor.

**Morrisroe:** Right.

**Gibbons:** Typically it would be six months, eight months, ten months down the road. Well, you know what happens in six months of a first term? People get appointed all over the place. The deck chairs get arranged.

**Johns:** First come, first served.

**Gibbons:** It’s an unbelievably turbulent time. Therefore I was given an enormous advantage of an early appointment, and I was able to participate directly in the identification of key people at the Assistant Secretary level and downward. And at the subcabinet level, like the NSF [National Science Foundation] Director, the NASA Director, those things were largely in my lap.

**Walcott:** Your early appointment was in large part because they already knew you so well?

**Gibbons:** I think so.

**Walcott:** I mean the early confirmation.

**Gibbons:** I think so. The Congress knew me, and I did a love-in up there, which was nice.

**Walcott:** There were no reservations or tough questions asked?

**Gibbons:** The only tough question I think I had was raised by some people in the animal-experiment area. If you read the testimony, it’s really funny because they asked me, “What about that experimentation with animals?” I answered that, first of all, I had a farm in Tennessee, and we raised beef cattle and I ate beef. That’s number one. Number two, I said, “If you read the OTA reports and others, my concern was that when we do raise, kill, and eat animals, that we do it with a sense of thanksgiving. We need to be more like the Native Americans, who, when they killed an animal, immediately gave a prayer of thanksgiving for that animal having given its life so that the Native American could live and have clothes and all the rest. That attitude of thanksgiving for that life is, to me, essential and ought to be more thoughtfully brought into our public policies in the way we treat animals.” The Senators had no more questions. I think I did
the right thing in being quite honest about where I stood on so-called animal welfare. That was the only negative question I received.

**Martin:** Before we started taping, one of you made a comment about the importance of the confirmation hearing in terms of giving you credibility and respect. Can you talk a little bit more about what you thought that brought you?

**Gibbons:** Well, first of all, if you are in the White House, that’s okay. There are a thousand people there, one place or another—OMB [Office of Management and Budget], the old Executive Office Building, the White House itself. If you’re there, that’s credibility to start with. If you are Senate confirmed, it means that you are part of the inside management team and that you have standing with the President and his most close associates. That includes the Cabinet.

If you are not confirmed and not given the position of Assistant to the President, you are distinctly levels below others in terms of your ability to convene people from the Cabinet, to call on and sometimes jawbone Cabinet officers, members of the Cabinet. And your whole standing within the Government, and to a degree with other Governments, depends on how you are seen. Where you stand is where you sit. For instance, for my entire term there, I was seen by other nations as the science minister of the U.S. Government. I learned later when I spent a little time as consultant to the State Department—they look at a title in order to decide where to seat you at the table, the so-called protocol officers. That’s what made me dismayed when Dr. Marburger was not given the title.

**Johns:** You knew he would “go down the street.” That’s where he ended up.

**Gibbons:** They moved that office all the way off the White House compound.

**Johns:** There’s an old saying around the White House that if you’re not in the West Wing, where very few people are, or the old Executive Office Building—if you’re in the new Executive Office Building, you might as well be at the Panama Canal. It’s true out of sight, out of mind. And Marburger is further down the street. What it tells you is, access and relevance of science and technology to the President at the time.

**Walcott:** Did you, upon confirmation, begin to jockey for physical position, location close enough to the President to be able to get there?

**Gibbons:** I did what I could early on. I’m not the most demanding person in the world. I first said, “I think I ought to have an office in the West Wing.” It had all been spoken for.

**Johns:** Do you remember Allan Bromley’s office, though?

**Gibbons:** Oh, yes.

**Johns:** This great big, elegant Taj Mahal in the corner office overlooking the front lawn. Jack—he may not tell you this but I will—said, “I don’t care about that office, but I want not only to be in the old Executive Office Building—”
Gibbons: Oh, no.

Johns: Afraid so. “—but I want my people to all be together.” So he traded in the Taj Mahal office and people scattered around the building—

Gibbons: Scattered around town even. They were in four locations.

Johns: —to having all of our people down the hall from each other and across the hall from Jack’s office, so it was a much more coherent organization—and a very smart move. He fought and he kept those spaces. Al, I’m sure, fought behind the scenes to make that happen.

Gibbons: Yes, I’m sure Gore did.

Martin: One thing you mentioned was interesting, being in so early to the White House in that first six months, being the period of people arranging the deck chairs. Can you give us more insight on that period? What was happening in the White House from your view? How was it being run?

Gibbons: Let me give you a couple of vignettes. One day I was called by—I forget who called me, but it was either Gore’s office or Clinton’s office. They said, “Would you get together with Leon Panetta (OMB director) and talk with Dan Golden—” who was the NASA administrator “—and tell us what we ought to do with Golden and NASA?” So Leon and I got together, and we interviewed Dan Golden, spent an hour with him. At the end of it, Leon and I looked at each other and we agreed, “He’s the man. Let’s keep him.” So Golden went right on through the Bush to the Clinton administration without a pause. So that was playing the role of checking out people for technical positions.

When it came to the National Science Foundation, I had the opportunity to give a couple of names to Al Gore to talk with the President about. I picked Neal Lane for a variety of reasons. Later on I also helped pick Rita Colwell. In a way, it was setting up the deck chairs for NSF. Rita said, “I really don’t want to be Deputy Director at NSF; I really want to be Director some day.” I said, “You’ll have a better chance than most others if you’re deputy to start with.” Sure enough, about four years later, that opportunity occurred when I told the President, just before the end of his first term, that I thought I should stay through that transition to the second term—because it’s a precarious time—but then soon after that, I’d like to move on. It was longer than sooner—it was more than a year and a half later that the right time for transition arrived.

I set it up so that Lane would be appointed to succeed me. I didn’t get any argument. I got a few questions from Gore, but I didn’t get any argument from them. They said, “Yes, that’s a good choice.” Again, Lane had been in town long enough to know the territory. I also said, “Let’s take Rita Colwell and move her up to be the Director of NSF because she’s been there long enough as deputy that she knows that territory well.” That happened to be the case. These were moves that were helped by my being early in the door and having their trust and helping identify people with the right background for these key technology jobs. That happened for other people, not the
Cabinet members themselves, but their number-two and number-three people, especially in the agencies such as EPA, Energy, NASA, and some other positions. Is that your question?

**Martin:** In addition to that, did getting into the White House early affect your positioning relative to other Assistants to the President or Cabinet members? How does that timing affect your stature, I guess, is the question?

**Gibbons:** It enabled me to become fairly close personally with some of the people, like Bob Rubin and others, whose acquiescence I was going to need in order to get the President to set up this National Science and Technology Council, because that was seen by the National Economic Council and others as a potential threat to their jurisdiction in the President’s court. I had to talk personally with these folks about what we had in mind and how it would complement, rather than carve out part of their space. And fortunately, while we got some significant questions, the President decided, when I went to him with the plan, to go with it. We had done our homework, in other words, with his subcabinet-level assistants. You have to be careful about that, because anything new in any organization is potentially destabilizing.

They also, in order to knit the things together, made me a member of the Economic Council, the Security Council, and the rest. That was more honorific than not, but it’s important, honorific or not, to be a member.

**Johns:** With the formation of the NEC [National Economic Council], because of the notion of “It’s the economy, stupid” and such, and political folks with some clout were in NEC, I think that NEC thought that OSTP should really be a subsidiary of NEC, because you can always argue that everything is economic. I think Jack’s early presence truly kept that from happening. Some of the strong personalities he had in OSTP helped keep that from happening. I think that was important because it kept Jack a separate player, even though Rubin was a hell of a good guy.

There were others who were more politically oriented—Tom Kalil, I guess, would be a case in point. I can imagine the description that Tom would have given. We had a love-hate relationship. There were times when we were each important to each other, so to speak, and it played out. But it was attention that was mostly healthy.

I think another aspect of the early arrival was the relationship that Jack had with Leon Panetta that helped us have a role in OMB’s placing of the science—the whole science and R & D budget—that we had an important and active role. Again, I think that had a lot to do with the early point. Also the Space Policy Council was almost as big as OSTP. And it was decided to do away with that and fold it into Jack’s bailiwick. Some part of that decision almost certainly had to do with your early being there. It gave us a hell of a lot—

**Gibbons:** Yes, got some nice furniture.

**Johns:** —of stuff to do, because NASA has such a huge budget relative to so much. I mean, whatever they did was expensive, and it also had to contribute to defense. So it had a special place in the minds of the prior administration. It was full of assignees from the Air Force and
others in the military establishment, some very good people. But nevertheless it left us with a sizable addition to the staff. All of that had to be, in part, the early arrival.

**Walcott:** Was your relationship with Panetta when he was in Congress a part of the bonding that went on at this time?

**Gibbons:** It wasn’t an intimate relationship until we were at the White House, although he knew me and I knew him. But it grew in the White House. I think the early appointment had another thing, Skip, that I hadn’t thought about that much: the fact that Clinton had me with the first group of Cabinet members to be announced, Christmas Eve, gave a signal that Clinton was treating this office with an unusual degree of clout.

**Johns:** Good point. Panetta was a hell of a nice guy, and their personalities are very similar. They’re both good guys. So I think they hit it off early and well. I think it probably gave Panetta some comfort with regard to feeling like Clinton policy would be pushed by the science and technology community, and the professionals at OMB would listen and that would be good overall for the administration. I think that that’s why most honorable terms are attributed to Panetta for allowing the degree of influence that OSTP had on OMB.

**Gibbons:** When Alice Rivlin took over from Leon Panetta, Alice, you may recall, prior to that had been the Director of the Congressional Budget Office, a sister office to OTA. She and I were old buddies from on the Hill. So that reinforced the relationship between the two offices.

**Johns:** It also helped OSTP in the sense that when Dan Golden or others were in pleading at the foot of Alice Rivlin or Leon Panetta to have OSTP sitting at the table, and Jack or myself or whoever, depending on the subject area, and supporting the case. So it made it a lot easier for us to then go to Dan and say, “Okay, what the President wants to do here is....” That’s how things get done, as the saying goes.

**Walcott:** In the early Clinton White House, some of the standard descriptions involve the term “madhouse.”

**Johns:** Or “fraternity,” yes.

**Walcott:** During the time Mack McLarty was the Chief of Staff, did you see any of that, the alleged disorganization, the lack of central direction, and so forth that was being reported at the time?

**Gibbons:** Just remember, was it Will Rogers who said, “I don’t belong to any organized political party. I’m a Democrat”? There’s a bit of that. Clinton likes dialogue, so does Gore. But Clinton especially liked to hear people out. I’ve never been in a session with Clinton and other people in which Clinton didn’t actively participate in the dialogue. That’s as contrasted to “W” [George W. Bush]. So yes, there was a sense of, not freneticness, but a sense of high level of dialogue in the White House. There were rumors of Clinton staying up to three in the morning arguing and discussing with some of his Cabinet people. I don’t know how he did it.
Incidentally, this [Monica] Lewinsky thing was totally invisible to me, even though I was pretty close. So whatever his escapades may have been, in my impression, there was not a hint that he was diverted from his central attention on running the Government or his awareness of things. It was a sad personal failing. But I remember back in the Nixon years, when I served the White House running the energy conservation programs, that the White House was full of people who came “free,” not paid. They were volunteers. Typically they were young, idealistic people, men and women, all of whom were dazzled by being so close to the stars, and none of whom you could trust. I think that’s a property of the White House and of young people who are dazed by the proximity of power.

Walcott: That was the case in the Clinton White House as well?

Gibbons: Well, Lewinsky obviously was one like that. I didn’t notice it otherwise.

Walcott: In the early days of the Clinton White House, we hear, there were an awful lot of people in from the campaign, as opposed to people with experience in Washington. People were running around disrespecting generals and things of that sort.

Gibbons: You mean George Stephanopoulos and—

Walcott: Yes, that kind of thing.

Gibbons: You always find the spoils of victory, but that winnows out pretty fast, I think.

Johns: Let me speak from a sub-Cabinet position. There were a number of politicos, we tended to call them, who were fascinated with the notion of power, felt like they could speak for the President, may or may not have had a knowledge about the subject areas in which they were asserting. And we would find ourselves going around occasionally and telling them to knock it off when you had heard a particular agency had been “instructed to do this at the request of the President,” where they were utilizing their clout. It wasn’t long before people started recognizing what was real clout and what was pretend clout. That’s always a problem in every administration. Certainly the administration had some undisciplined young politicos who did come out of the campaign. But it doesn’t take long for that—substance separates those folks out pretty quickly. Their overextending the amount of clout that they actually have puts the agencies on guard and the White House on guard.

Gibbons: You have to be careful. In the Congress, one of the most common faults is that a young staffer—you don’t have to be young—anyhow, a staffer gets permission to use the pen—that is, the automatic pen of the member. And there have been more crashed idols on account of that, due to the member not understanding what kind of power he’s giving to some young staffer in terms of being able to use the pen. That same sort of feeling that “I work for the member, and therefore I sort of am the member.” And that happens in the White House as well. It’s a truism of the abuse of power that comes in any organization if you’re allowed to abuse it.

Morrisroe: I have one last question before we’ll take a brief break. Let’s say, the first six months or so of the administration, in the White House and the EOB [Executive Office Building]
compound, can you paint a picture of the science and technology network of advisors? In addition to yourself, of course, the three or four people in the White House, whether they be people from the Vice President’s office or the NEC—I assume Kalil would be one—who were the main Presidential advisors on science and technology, and what are their, I guess, beats? What are their areas that they are advancing and covering, and how do those individuals work together? It’s a bit broad, and we’ll probably come back at different periods of time during your service and ask if these people have changed. But for the first six months, let’s say, who were the key players in science and technology, and what are the agendas that you all are advancing?

**Gibbons:** First of all, I don’t even remember Tom Kalil until several years later.

**Morrisroe:** Oh, okay, that’s interesting to know.

**Gibbons:** I do remember Greg Simon, who was a principal assistant to Al Gore. I remember, of course, Hazel O’Leary and other Cabinet members with whom I had to work as we were working up Presidential initiatives. So my focus early on was to help organize a foundation for working effectively in the integration of the agencies across the stovepipes.

One of the first things I took to the President was a recommendation to establish a National Science and Technology Council, and it took quite a while to put it together. I think it was the fall before it was all put together. And to reestablish and reaffirm the President’s science advisory committee on science and technology, PCAST [President’s Committee of Advisors on Science and Technology] was put together, again, by the summer of ’93.

What hit me first off in the office, besides organizing it, was to get ready for the budget, because the President always comes in on the tail end of the budget preparation, and we have to do a lot of twisting of tails because we had to reflect the President’s profound commitment to begin to reduce the deficit. Most people still confuse deficit from debt. But we worked very hard at that. At my suggestion Leon and I ended up every year writing to every Cabinet officer, every Secretary, a memorandum on the treatment of science and technology in that agency’s budget. So we were giving directions from the White House in terms of how they ought to think about their budget, especially the science and technology part of it.

Three things happened within the first 60 days. One was the idea of a partnership, literally, between the Federal Government and the private sector, and among agencies of the Federal Government, on driving ahead for a leapfrog in automotive technology—so-called Partnership for a New Generation of Vehicles—because we knew that was a common imperative in terms of working on our rising import dependence, our rising air pollution, our impending loss of market to the Japanese, who were moving faster and smarter than our private sector was. And 20 percent of our whole national employment was in that industry. Don’t ask me what it is now; I’m not sure. So the PNGV [Partnership for a New Generation of Vehicles] formation was early on in terms of getting the President’s interest and attention and commitment to it.

But I do remember a meeting in the [Theodore and Franklin] Roosevelt Room within weeks, or at least within a month of Clinton coming to office. I think it was in February. The meeting was a back-to-back briefing that I had to lead for the President on two issues that were relevant to the
forthcoming budget. One was, what can we do about the superconducting supercollider? And the other was, what do we do about the space station?—both enormous things, both inherited from prior administrations, both in major need of surgery and recuperation. The President and Vice President were both in that meeting, and a number of other people were in the room. In an hour we covered both of those issues and came to pretty firm conclusions on both of them. Clinton was right in there, and so was Gore, in that discussion. My job was to pull together the briefing and be the one to answer most of the questions. So I was on the hot seat from the day I got in the office. The rest were trying to organize with the agencies for their budgets, trying to elicit interest in this forthcoming Presidential initiative on the automobile thing.

What else, Skip? How much have I forgotten of those early days?

Johns: Well, remember the whitehouse.gov, to get the Internet into schools and libraries—

Gibbons: And into the White House.

Johns: —so you didn’t have a have/have-not society with regard to it. We created whitehouse.gov by actually having a competition among nerd kids across the United States in colleges to write their own web pages and submit it. For the winners, they would get an internship to come write whitehouse.gov. We got some wonderful kids on board to do that.

Gibbons: And a very good web page.

Johns: In fact we were named one of the top-ten web pages in the world the first year, had a lot of hits. The determination on the part of Gore, for example, speaking for Clinton, was that this be a web page that was not a political web page that touted the current President, but touted the Presidency, its tie to the other agencies, and an access for the public to the services of the other agencies that were there to serve the public. I think they have stuck with it fairly well. I’m not terribly familiar with W, but up to that time, there was a maintenance of that notion of a window on the Federal Government in order to help.

Gibbons: That led to the Hammer Award, Gore’s “Simplify. Make Government work better,” because you suddenly had web pages of these agencies, user-friendly. A lot more attention, which I thought was a smart move on the part of Gore.

I remember two little vignettes, or at least one. Gore came into a meeting one morning and he said, “I’ve just come up from the basement of the old EOB,” where the White House operators are. He said, “I can’t believe it. I went down there, and here are these ladies lined up along the wall on chairs with these switches going like this.”

Johns: The old telephone system.

Gibbons: It was the old telephone systems. So our first major expenditure, I think, was to get rid of that thing.

Johns: And IBM Selectrics.
Gibbons: The White House switchboard had been so jammed up from calls that they couldn’t be handled. That’s why Gore went downstairs to see what was going on. These ladies simply couldn’t plug fast enough. So that was one vignette.

Another vignette: we wanted to introduce the President to email and the Net. So we brought him over to the old EOB, and he sat down in front of this computer—it may have been the first time he sat down in front of a computer—and showed him how email worked and gave him his email address over across the street in the Oval Office. So he typed in his first email message. It was something like, “Bill Clinton, it’s time to come home for lunch. Signed, Hillary,” something like that. I saved a copy of it. That was his first email.

Now, that contrasts between the personable person Bill Clinton, who operated more like a preacher than a businessman in terms of his relationships with people, and Al Gore, who had a major computer on his right hand in his office…the first thing he installed. To get his attention, typically, instead of trying to get him on the telephone, you send him an email because it will get through to him faster. You have to get used to the fact that when you’re talking with him about what you believe is a burning issue, he’s listening to you with one ear, but he’s also reading his email at the same time. Very different personalities.

Morrisroe: Very good.

Johns: There were other things like the Tech Corps. The notion was, you wouldn’t be able to put the Internet in and have kids, poor kids particularly, using libraries in schools if teachers couldn’t do something with it. So the Tech Corps notion was that we would go around, particularly to urban areas, and have teach-ins for teachers so that teachers would know how to teach the use of the Internet—I think, an important factor.

With regard to the stovepiping, if you think about it, Detroit, which was not working on fuel cells, yet you had NASA who had years of fuel-cell experience for space applications—

Gibbons: And the Navy with highly advanced power controls in submarines—

Johns: So to get these agencies talking to each other, our committees and subcommittees brought them together, and they knew that their value to their agencies was based on their ability to communicate to industry. So you had a pulling together of that R & D. All of these organizations were worried about their future because it had been dependent on what they could tie to defense, for example. So we had a willing group listening, and all of those were initiatives that fed together and served things. The faster, better, cheaper notion, the change of concentration from manned space flight to robotic space flight gave us an opportunity to learn a hell of a lot more about the solar system than trying to do it on a manned basis, as you can see with the current manned commitments—and support the revitalization of Hubbell. For a while, that was a question in the current administration. There was no question at all of what a fabulous contribution to astronomy that Hubbell had represented.
Morrisroe: Why don’t we take a break? We’ll probably get back in greater detail to some of the subject areas like space station, Hubbell, supercolliding superconductor. Maybe when we come back, we can start off with going in greater detail about the creation of the NSTC [National Science and Technology Council] and the reconfiguration of the advisory councils, and we can also take on some of the specific issues in greater detail. Does that sound all right?

Gibbons: Sure, good.

[BREAK]

Morrisroe: Why don’t we start off with returning to a discussion of the creation of the National Science and Technology Council? I’m not sure if it’s part of the same story, but perhaps it is, with the reorganization, including of the Space Council. So walk us through how that came about and some of the major issues that were involved in that.

Gibbons: Well, there are turbulent times, of course, when a new administration comes in. One thing that Clinton wanted to do—it turned out later it was called “Al Gore’s Hammer”: “Let’s make Government more efficient, not just smaller but more efficient”—was to look around at redundancies or things that could be cleaned up a bit. Dan [J. Danforth] Quayle’s Space Council was an easy first target, and the decision was simply to get rid of it.

Morrisroe: What made it such an easy target?

Gibbons: Because they weren’t doing very much except Quayle talking “Canals on Mars.” You’ll pardon the expression, but that’s what he was doing.

Johns: It was also a mainline voice and monitoring system for the Defense Department—I don’t mean in a malicious way, but in a self-interest way. Because while NASA, the Space Council, was writ large, it wasn’t just NASA, so it gave them a special voice and one we wanted to equalize.

Gibbons: So they simply decided to absorb it into OSTP. We got the furniture, as I said, and we got a lot of responsibilities that were very helpful to us in terms of working directly with NASA and with DoD. I think Skip is right. You have to understand that the DoD has a group that are very desirous of being our space cadets. Space is the new frontier—new opportunities for arming and defending it and everything else. I think moving it in under OSTP helped diffuse entry of that notion into the White House. It was then through the filter of OSTP.

Morrisroe: Did you get a lot of pushback from the Defense Department over that decision?

Gibbons: It was done in those turbulent, early days in which Gore and Clinton simply decided—and the other folks in the White House decided—“That’s what we ought to do,” and I agreed with them.
Johns: I ended up inheriting a large part of that responsibility, and there was very little pushback. There was mostly fear on the part of the Defense Department. They didn’t know where to reach around the decision.

Gibbons: Another thing was Clinton reaffirmed he wanted to take fullest advantage of the Congressional act that enabled me to have several Presidentially nominated and Senate-confirmed assistant directors, associate directors. We had science; we had technology, including national defense; international security; and what was the fourth, Skip?

Morrisroe: Environmental?

Gibbons: Yes, the environment.

Morrisroe: How had it been previously for those who read this who might be interested in the development of OSTP structure?

Johns: It was similar under Bromley, right?

Gibbons: Bromley had industrial, and he had science, I guess. I don’t think he had environment. There was no environment director.

Johns: No, but there was security.

Morrisroe: They had not previously been Senate confirmed.

Johns: I don’t know that.

Gibbons: Under Bromley, my impression was that a couple of them were, although I’m not sure which ones.

Johns: I have the same feeling, but—Jack is too nice to speak of Bromley—but Bromley was really running a science office and was, in my view, much more interested in protocol and standing of science—

Gibbons:—than he was in science and technology, as far as the implications to national policy and the future and the importance of the economy. It was more or less to protect the academic structure. He was very much a protocol—the importance of a Taj Mahal office and all of that, despite, I’m sure, one day his having been a very effective and contributory scientist. He was much more in the social protocol at that time.

Walcott: When you accepted the job, did you talk to Bromley or anyone else who had served prior Presidents concerning how to do it, how not to do it, what are the mistakes he made, and these sorts of things?
Gibbons: Oh, yes. I’d known Bromley for some years. We had done similar research in nuclear physics, and I had had lunch with him from time to time over at the White House. He very kindly prepared a whole bunch of briefing books for us, which I thought was very impressive. Later I realized they were really of no value to us. I hate to say that, because I know he put a lot of effort into preparing these books as a means for continuity across administrations. The other thing they did was take out all the hard drives from all the computers. I guess the security people do that, but we had to go out and buy a bunch of hard drives.

But what was happening in those turbulent early days was, first, forming our own office, identifying the assistant directors, matching them up, identifying people—like, should Dan Golden stay or not stay? These were things that were happening fast. And what about the budget? How do we handle the budget? But then there was mention of a Cabinet-Council-level group similar to the National Economic Council, National Security Council. I said, “Let’s have a National Science and Technology Council,” and that laid the groundwork that took us six months to complete. That had early beginnings.

The Partnership for a New Generation of Vehicles was going to be the hallmark, early indication, of a Presidential initiative—crossing agencies, crossing federal and private sector, a new venture of cooperation between the sectors. That got early attention with Gore picking up with us and pushing that along.

Johns: And selling the CEOs [chief executive officer], which was hard to do. Gore really pushed to make that sale.

Gibbons: He was masterful.

Martin: Is it coincidence that Dingell’s name came up earlier in terms of—

Johns: He was opposed to it because he was afraid we would discover what could be done and then it would be imposed by law. So Dingell was very old-school with regard to keeping hands off the auto industry. We visualized that we were saving the auto industry from its own convictions, which—in Detroit you weren’t allowed to think any way except the way the industry thought. It had proved disastrous earlier on. That’s how the Japanese got such a huge segment of our market. Because of the way they manufactured things—again, something that was fairly ignored in the industry in the United States—they had an advantage that they were going to keep. So we were helping industry, in our view, but status quo was what Dingell was protecting.

Morrisroe: So where does that initiative come from? Did that come out of Gore’s office? Was that proposed by you? How did these policies emerge?

Gibbons: We knew that Gore was interested in this. Apparently Clinton and Gore had talked informally about some kind of an initiative with Detroit during the ’92 campaign. Skip and I went to Gore—I don’t think we even wrote a memo on it—suggesting that we get together with Detroit. We had earlier (about March ’93) developed a paper on a national science and
technology economic strategy, which would focus on using science and technology as a means to achieve various overarching goals of the administration.

Johns: It’s not in the book, and I don’t think it’s mentioned. I think you mentioned the goals, but you don’t mention a report we put out within—

Gibbons: The first 60 days.

Johns: I was going to say within four weeks of the start of the administration, because we were frantic to get it done so that we had a guideline to work with the agencies.

Gibbons: We did that with the NEC, didn’t we? It was a joint venture?

Johns: Yes, sort of.

Martin: Even this white paper, I guess you would call it, is this something that you were being entrepreneurial about, or are you getting cues from Clinton? It seems that the prior person who was the science advisor, by your description, was very different. The office was very different.

Johns: Totally different.

Martin: The prior offices were focused on defense technology.

Gibbons: Yes.

Martin: You have a lot of work to do to move it from that position to maybe even just a year or two later. Is that something you come up with, or are you taking signals from other folks?

Gibbons: We had thought about these issues before we got into the White House. Quite honestly, we just knew this was important from several perspectives: environmental perspective, our economic leadership, technology, and oil imports. Everything led to the conclusion that we had to do something in the transportation sector, which was where two-thirds of the oil went. And it was going to get worse.

Johns: And global competitiveness.

Gibbons: And job protection in the U.S. Transportation accounts for 20 percent of national employment. So it’s a no-brainer to say, “We’ve got to do something in that sector.” The brainer part had to do with how to put it together. How do you get these previously warring factions between Detroit and the regulatory agencies to actually think about working together? I mean, the perspective of Detroit was, “If you do anything in Washington, they’ll either tax it or regulate it.” I used, for Clinton, the analogy of barn raising in the Shenandoah Valley, which is where I was raised. That is, you’ve got a problem; it’s as big or bigger than you can handle by yourself, so you get the neighbor and family over, and together you build a barn. The next time, you help them build their barn. It’s that sense of mutual cooperation for mutual gain. We took that attitude with Detroit.
Only slowly did those folks get convinced that we were serious about a true partnership. We built it with joint participation in the management, joint submission of an annual review to an independent committee created by the National Academies to review the whole project and then tell both industry and Government what we ought to be doing differently. It had a whole new flavor of how Government and industry could work together on areas where there is mutual common interest, mutual public interest. So that’s why it was so important to get the initiative underway early as an indication of a new way of the Government working with private sector.

Morrisroe: How did that work with the National Economic Council, who might have had an interest in that area as well?

Johns: They had a big interest and a big participation.

Gibbons: Yes.

Johns: Tom Kalil, Mike Nelson. Then he and my folks, which was Henry Kelly and our space guy who I’ve known for 100 years—I’ll think of him in a minute—we were the ones who were writing that strategic part as it related principally to technology and this overall strategy. And it’s worth getting your hands on that. It’s more than a white paper in the sense that it was a balanced—

Gibbons: Strategic report.

Johns: It didn’t get wide circulation just because things were frantic early on. But it set the basis of direction, particularly for the technology.

Gibbons: We started out as emissaries for Clinton and Gore. For instance, I went up to Detroit for a second meeting, to establish some rapport with basically the technology and research vice president level of the big motors. It was a confidence-building set of dialogues, mostly after dinner in Detroit. That helped lead to a sense of what might work in terms of a formal agreement between the industry and Government. We had some idea about which agencies, which universities, would make the right members of this consortium. How do you get engineers in Government, and engineers in industry, and engineers in universities to begin to understand each other?

Johns: Without lawyers.

Gibbons: So it built to the point that Detroit was ready to come down and talk with the President and the Vice President about it, which they did. Then the second round, they came back to cut an agreement.

I remember being in Gore’s office. It was Gore and me and CEOs of the big-three motors sitting around the couch talking about what to do and how to do it. Detroit wanted a very different deal. They wanted a much lower bar for the goal, and I argued that you need a bar high enough to attract public capital. If it’s low enough, then the private sector ought to be able to do it by
themselves. So it would have to be more than a reach; it would have to be, really, a push over the horizon. As one of the motor presidents said, “What you’re asking is not to go to the moon but to get on to Mars,” figuratively.

The argument resolved mostly around what should the target mileage be for the new generation of vehicles? How much time should we take to get there, and how do we describe it so that if we fail—and we might, because it’s long reach—that it’s still an acceptable expenditure of time and money for both parties? Detroit started at something like 35 miles a gallon, and we started at 85. We converged—Gore was hard, oh God, he was hard. We ended up with—

**Johns:** Seventy.

**Gibbons:** But as a target, not as a goal—so that it was defensible that this was, we didn’t know how we could achieve it but we wanted to make sure we were trying to get beyond what the conventional world would say is highly probable, except for Amy Levins perhaps.

**Johns:** Technologically it was beyond gasoline alone.

**Gibbons:** You couldn’t do it with gasoline.

**Johns:** It had to be essentially impossible. So the combination of the Taurus, as far as a weight, size, performance, safety model—which was just meant as a mid-class car—and the 70 miles per gallon got you past, at least, any gasoline-driven car. Perhaps you could do something with the diesel, but unlikely, because we wanted to get into the realm that was over their R & D horizon, which included hybrids, fuel cells, and batteries, principally, as the likely candidates. They ended up with hybrids as at least a transition choice. Also, an environmental performance goal, that was satisfactory in addition to the 70 miles per gallon. That really located where we wanted it to end up. Finally they accepted, though they were clearly reticent about targeting such an ambitious goal.

**Gibbons:** We chose a ten-year horizon, long enough for realistic things to happen: namely, to build not just a demonstration, but a production prototype. There’s a big difference between those two.

**Johns:** We also wanted to define the line between where the Federal Government would contribute and where competitiveness between those companies began, that they didn’t have to divulge their corporate competitive approaches. It helped define where the labs could contribute, and it created a basis for a dialogue that was, in fact, extremely important, in my view.

**Martin:** Can I come back to the John Dingell question, because you’re now dealing with his actual district?

**Gibbons:** That’s right.

**Johns:** Damn right.
**Martin:** He’s the chair of the Energy and Commerce Committee at the time, if I’m right about that. Maybe it’s just the Energy Committee. Maybe they haven’t combined it. And he is, at that time, probably one of the most powerful members of Congress.

**Johns:** Absolutely.

**Martin:** He’s a big man to get around.

**Gibbons:** We had to go up and talk with him.

**Johns:** The auto industry ultimately sold him, because they, I think, made a point about their own self interest. They became convinced that it could be done and that we weren’t trying to trick them—even though Dingell’s people were making a point that it was all a trick on the part of the administration in order to suck them into unachievable mileage and drive them out of business.

**Gibbons:** So you can see there was a fair gestation period where we had to work pretty intensively with Detroit. We had one particularly good friend who at that time was at Chrysler, wasn’t it?

**Johns:** The Frenchman?

**Gibbons:** Yes. Anyhow, your memory is much better than mine, Skip.

**Johns:** [William Michael] Kitzmiller was a help too. He was staff director for Dingell.

**Gibbons:** It took months for the wine to be refined. But meanwhile we devised a mechanism by which the National Academies were given the authority and responsibility to do any reviews of the work and issue an annual report to both Government and industry. We identified key universities who could become involved with their engineering departments and the way they could be engaged.

Gore volunteered to hold periodic meetings, like once every two months or so, at his residence for the engineers to come—and sometimes with their wives—to get to know each other, to talk, to have a day-long seminar on progress. So it became infused, cross-linked, with information and new context. All of these have to be devised in advance. I think that helped give rise to the serious intent we had to do something meaningful, and that would require a fair amount of time. A ten-year horizon was far beyond when Clinton was going to be in office. But we hoped it would have momentum.

At the same time, we pushed ahead on forming the National Science and Technology Council, chaired by the President. The Vice President wanted to chair it in the absence of the President. And then I was supposed to chair it when neither one could be present. Agency members were at the Secretary/Administrator or Deputy level. This set the mechanism for us to do this work and also to be able to issue Presidential Findings and Executive Orders.
Morrisroe: Talking about the membership of the council, which departments became most involved?

Johns: Commerce and Energy were probably number one, and NASA was number two, and NSF and Defense principally—but six or seven agencies in total.

Gibbons: Yes.

Johns: Of course Energy and NASA had the big labs. That’s where we wanted the intellectual capital to be moved and focused. So they were important players. NOAA was an important player. Jim Baker, Mary Good, and NIST [National Institute of Standards and Technology], because NIST was going to be—it’s part of the Department of Commerce, and subsequently the one most responsible for what you might call, pardon the expression, industrial—meaning, a bridge to help make this tie between research, commerce, and the private sector. The private sector tended to trust NIST because they had demonstrated their lack of political clout. They underestimated Mary Good, who was no slouch.

Gibbons: I’ll tell you a vignette about Mary Good. When we started this program, we decided that it ought to be KISS, keep it simple. On the Government side, there ought to be one person who was ultimately responsible for the work across the agencies; the same for industry, across all the motors. We looked around and decided we’d found just the right person, who was a Ph.D. chemist—a well-known chemist with strong academic credentials who had a high position at the Department of Commerce, although she had wanted a different agency. She wanted NSF, and I told her we couldn’t give her NSF, but we’d give her the science job at Commerce. Her name is Mary Good, from Arkansas.

So I went to the President and as I gave him a progress report on how this thing was going along, I said, “We’ve got a wonderful person from the Department of Commerce. This is a commercial venture ultimately, so we think that’s the right agency, although the Department of Energy is going to do most of the work. It’s a wonderful lady from Arkansas. Her name is Mary Good.” He said, “Do you mean Mary Lowe Good?” I said, “Yes, sir.” He said, “Well, I know Mary, and I know her sister too. She’s an ob-gyn.” So the President was quite happy with that choice. Mary then led the program for all of the federal agencies.

Then, of course, there was a great tussle between Ron Brown at Commerce, who wanted the whole thing, and Hazel O’Leary at Energy, who wanted the whole thing. They got in real tussles with each other. So the Vice President asked me to go over and tell them what to do. So that was another example of where having a Presidential appointment as assistant meant I could go and faithfully represent the President, telling two Cabinet members that they have to get together, and it had to be this Cabinet member (Brown); that it would be in his department rather than in Energy. Even though O’Leary’s people were doing most of the work, leadership had to be in Commerce. Now, that’s a little side vignette of the important invisible kinds of roles that the White House office can play to help make things work.

Johns: If you reflect on it, the Detroit crowd had very little trust in the Department of Energy, because they would have likely been driven by the conservation branch, which was single-
minded in the potential—correctly, of course—of what could be saved in terms of our energy consumption by moving in that direction. Commerce was a much more neutral project manager, so to speak. Mary was a tough hombre. She was great.

Gibbons: She was really great. And Al Gore played a key role, because this program, from the outset, directly involved him, substantively and time-wise. The Vice President—there are very few activities a Vice President can take on like that within the Government, but Al did it and did it beautifully.

Johns: We had a magic show every spring on the lawn of the White House to highlight the progress. The President would show up, and the CEOs of the Detroit companies. The Vice President was sort of the master of ceremonies. Now of course it stimulated the Japanese to move more rapidly with regard to the Prius and others.

Gibbons: One retired CEO of General Motors told me a few years after we’d been in this that the PNGV effort of the Federal Government with Detroit put the auto industry five years farther ahead at that point than they would have been otherwise in terms of these advanced technologies.

Johns: All three of them ultimately produced demonstration cars that either met or only missed by a mile or two per gallon within the timeframe that they were supposed to do that. They all came up with their own approaches—but important steps forward from a technological point of view.

Gibbons: And the background of that—which was attempting to show how Government could work in new ways toward national goals that also were consonant with private-sector goals—we worked away on getting the President’s advisory council (PCAST) together. We were very fortunate, for a variety of reasons, to get the right mix of people. Then ensued a number of key reports that the council did for the President.

Morrisroe: What was the mix you were looking for?

Gibbons: Heavy presence of industrial knowledge, heavy presence of academic Nobel Laureate-type folks, and presence of public-interest people. But it was much more diverse than just a bunch of academicians.

One small example was that we did a study under a committee of that group on what to do about plutonium management, especially Russia. I remember being in the Oval Office when John Holdren did the briefing to the President. Holdren was the chair of that committee, of PCAST. He did a beautiful job—the Vice President was there too—over about a half an hour, talking about plutonium and what one might be able to do to get our arms around it, because that’s the center of the issue of nuclear proliferation.

The President soaked up this information—he absorbs stuff so beautifully—and used that information ten days later when he met with [Boris] Yeltsin and set up the start of the agreements with Russia on plutonium protection and weapons-stockpile infrastructure. We ended up with [Samuel] Nunn and [Richard] Lugar, Republican and Democrat Senators, setting up their
bill, which funded work in Russia, with the U.S. helping, building facilities to protect this vital material. I saw one of the earlier storage facilities outside Moscow, before it came to this, in which you could literally walk through a hole in the fence and get into one of the buildings containing a lot of enriched uranium.

**Johns:** And stored devices as well.

**Gibbons:** So the President’s advisory committee on science and technology undertook tasks. One was to be available for giving advice to me, and indirectly to the President and Vice President, for questions we might have. The second was to undertake, under their own auspices, key studies in which they could go outside Government and pick up a few other experts to help them work the issue, whether it be international development of energy systems or things like plutonium.

**Morrisroe:** Was their role comparable to OTA’s in which they would get the information and present various options, or was their role to present specific recommendations?

**Gibbons:** They made recommendations to the President. That’s the big difference between the White House and Congress. I got to thinking so much about on this hand and on the other hand, I almost forgot how to give a one-handed presentation. When you’re near the President, it’s all right to give him the idea of what his other options are, but he’s also going to expect a recommendation.

**Johns:** The effort to create an objective basis for the policy recommendation was strongly felt, and the people who were involved were ones who needed to believe in that—Holdren was a perfectly good example. A wonderful scientist, widely respected as being thorough, effective, and yet one of the strongest supporters of the importance of keeping the nuclear genie in the bottle. And just a tremendous asset. He’s from Berkeley.

**Gibbons:** Now, there was another thing going on simultaneous with all of this. I’m glad I was younger in those days. We recognized full well that a series of issues in biotechnology and in the life sciences were going to be problematic in terms of ethical processes and procedures, a lot of issues: life extension, genetic manipulations, all sorts of things.

I went to the President and said, “I think you need a bioethics advisory commission or committee.” In the background I had talked with Senator Mark Hatfield about the earlier attempt he and then-Senator Gore had made up on the Hill. The religious right had blocked every appointment they wanted to make to this commission. They could never get a commission appointed. So Hatfield and Kennedy and Hatch told me that if we would do this down at the White House, they would cease their attempts on the Hill—as long as they could have access to some of the people we placed on the committee. In other words they would support something being made as a commission to the President rather than to the Congress.

That’s not widely known, but there was a bipartisan group on the Senate side who were very helpful to me in trying to figure out who we ought to appoint to this thing. We had to get a balance that was appropriate, but not let one or another interest dominate. That took us quite a
while. The first thing I had to find was a chair. I said, “All right, it needs to be someone who knows how to run a meeting in a turbulent environment and has good experience. That probably means a university president.”

I thought about an extraordinary person who was at that time president of Princeton, Harold Shapiro. Now, Harold is not a scientist; he is an economist by background. That’s all right. You don’t have to know the details of the subject. You have to know how to run a meeting full of disparate people. I called him, talked with him for a while. He said, “I’d love to do it, but I just can’t. I’m absolutely covered up for the next six months. I couldn’t touch it.” I responded, “How about six months from now?” He said, “All right.” So I told the President we needed to appoint this commission and I’d like Shapiro to chair it. Told him the other people we thought would make great members. It took quite a while for us to put the whole thing together.

Morrisroe: When you’re creating something like this that involves issues relevant to a number of Cabinet departments and agencies, do you speak with them before or in the process of this, or do you propose this and they’re brought in later? How does that work?

Gibbons: You do some quiet conversations around town, including the National Academies and the Institute of Medicine. You get confidential feedback on names you might have in your head and names they might provide to you. You have to ask around quite a bit. It’s like the way we used to do our panels for OTA.

Johns: But you might time when you went to the agencies, depending on how much they can do to derail you.

Morrisroe: Fair enough.

Johns: So they were never in the dark, but they might come in late if we thought they had the clout to derail the effort, or they might be invited in late. But we had good relationships with our counterparts, mostly at the Under Secretary level.

Morrisroe: In the science and research?

Johns: Yes, in the various agencies. So there was a reasonable amount of trust there. That was not my neck of the woods, so I can’t comment on it to say I support it.

Gibbons: You have to build knowledge of it. In politics a politician can handle almost any kind of news, however bad, as long as he gets it first and doesn’t hear it indirectly. So it’s not only who you talk with, but in the order you talk with them.

Johns: And have the courtesy not to blindside them.

Gibbons: The head of HHS was obviously one who had to be courted. So too were key people on the Hill about how we were proceeding, so it came not as a surprise about what we had in mind doing. When things were just about right, I went to the President. He approved the proposal. This was in something like October. About one month later, Dolly the sheep was
cloned. So it’s a good thing we got this group appointed a little bit earlier than that; but they had their business cut out for them the first day they met. That commission still exists, albeit with different participants. There are more right-to-lifers and other types on that commission now that I don’t think would have made it in such numbers during the Clinton years.

Walcott: When you were consulting, did you go outside the Government?

Gibbons: I went to the National Academies, which is outside Government. You mean in terms of talking about names?

Walcott: Talking about names, talking about the idea itself.

Johns: And universities.

Gibbons: Yes, universities as well. It was an old tradition that people at OTA, when they’re getting ready to form a panel on a subject, get on the phone and just ask a person and then see what names keep coming up in those various conversations with various people. Then that helped lead us to a narrower set. But it broadened any set we could have done solely by ourselves. I was pleased that it worked as well as it did. I was so delighted that we waited six months just for Harold Shapiro to get his workload freed up, because he was an essential, powerful chair. So that was going on all at the same time, that summer of ’93 and on into ’94.

We had to do other commissions, such as the one to look into the Gulf War Syndrome. It was a mess. It still is a mess. That was a more temporary group to meet, gather their wisdom, and then report to the President and the Congress. So our role there was a little like OTA, a convening of names and people and a knowledge of the area so that we could provide a thoughtful list of people that would make up an appropriately balanced group. What have I left out on that one? That was all the summer, fall, winter of ’93 on into ’94.

Morrisroe: With these various commissions or the other activities that are taking place during the first year, OSTP is taking on something of a more enhanced role than it had in previous administrations, certainly a more significant role in coordinating Presidential directives on science and technology policy. Did you encounter, with any particular Cabinet officers, a reluctance or unwillingness to make use of this channel and going around you to the President? Do any instances of that—

Gibbons: Oh, yes.

Morrisroe: Can you share any of those?

Gibbons: I’ll give you one example. On this business of the Partnership for a New Generation of Vehicles, when I met with Secretary Brown and Secretary O’Leary, one of the two—I’ll have to tell you, it was Hazel—said, “You’re trying to tell me something I don’t like to hear.” I said, “I guess it is.” She said, “I’ll just go see the President about it.” I said, “That’s your prerogative, but remember, the President sent me over here to talk with you.” We worked it out. Cabinet members are zealous over their authority, and I don’t blame them. As a sub-Cabinet officer you
have to be very careful in the way you use your authority. But as long as you have the stamp of the President directly on your mission, that helps.

**Johns:** What drives the Cabinet officers is, “You’re going to take my budget. You’re going to cut my budget and make me do things more frugally, and you’re going to take control over how I spend my budget. I want to be damn sure that I’m going to be in that play. I’m not going to lose my ability to run my agency properly because everybody else is setting my budget.” So they had strong motivations. That’s aside from the normal turf battles or fears between agencies that make for smokestacks in the first place, or chimneys.

**Morrisroe:** Were any of these Cabinet agency heads—or they may have been sub-Cabinet, I’m not sure—were they ever successful at going around you to either the President or the Vice President in seeking—

**Johns:** Damn seldom would be a good generality.

**Gibbons:** Very seldom. I can’t even think of a specific incident.

**Johns:** They may have persuaded us with regard, in effect, because they did have an input early on. I worked very closely with NASA director Dan Golden, who was a real asset to our office, because he was a satisfy-the-customer sort of guy and a smart guy.

**Gibbons:** Skip, I think a good vignette here might be to relate the two or three times, especially involving NASA, in which we had to play the matchmaker amongst powerful agencies on things like the declassification and release to commercial development of the global positioning satellite system and some of the other things that involved the use of space assets, the responsibilities between DoD and NASA for space-launch systems and the like, and the redundancy of the meteorological satellites.

**Johns:** If you take the GPS [Global Positioning System], for example—and we were strong advocates of getting that assured to be in the public domain—the DoD, who had developed it and wanted to use it, was concerned about a couple of things: First of all, what I can’t elaborate on is we had some detection systems associated with arms control that were on those platforms, in addition to the navigational aspect of them. Secondly, there were concerns that, in theater warfare, the Department of Defense would have an enemy who had as good a navigation system because they’d have ours. So Defense wanted to be sure that, in a theater situation, they could deny our adversary of being able to use our highly accurate nav systems. That meant they had to devise a way to shut them down without making every commercial aircraft not know where the hell it was ten years down the pike.

I asked them if they would rather have a Russian system, which was already in place—and when combined with our system gave you an even more accurate fix—or the French, who were dying to have the world’s navigation system, or the Japanese, who would be less able to do it at that point. But nevertheless, “Would you, DoD, rather have someone else have this master system of navigation, or would you rather ultimately have it in your hands?” That was the argument that
ultimately won out, even though Louis Freeh and a few other folks came in to try and keep us from going public with it.

I think it was an important contribution we made. All you have to do is look around at the portion of our economy that is taking advantage of GPS. It’s probably on your telephone if you’ve gotten a cell phone in the past year. If not, I’ll tell you where you are.

**Gibbons:** Another example, not by accident, but we realized that the stovepipes, especially of defense and non-defense agencies—there were weather satellite systems up there operating, both by DoD and by NOAA separately, and that there’s a billion dollars or more to be saved by getting these agencies to use the same satellite system. They acceded to that, especially when Panetta and I used the OMB capability of appropriations to say, “You’d better get together and save that money because you’re going to need it for other things.” So it’s a matter of looking across these agencies, at the interstitial spaces between them and figuring out how to make things work better. There were other things as well having to do with other satellite systems, but I think the GPS is a classic example of where we were able to play.

**Martin:** In a story like the GPS being moved from military technology and opening it up to industrial technology—

**Johns:** It wasn’t moved; it was a commitment.

**Martin:** Opening it up.

**Johns:** DoD is still running those out of Colorado, and they do a damn good job of it. You have to instruct every one of those things every 24 hours to maintain correct position, and they want information that it has picked up as well, as you might speculate.

**Martin:** My verbiage was incorrect, but the idea of opening it up to have industry have a part, or at least be able to use the technologies, the story that I’m understanding or hearing is that it is mostly coming from the White House and your office, coordinating with the other agencies and basically instructing them that, “We’re going to do something different now.” What roles do industry and interest groups play here? Do they have a seat at the table? How about Congressional committees? Are there other people involved that we should pay attention to?

**Gibbons:** There’s a theorem in Washington, and I think it’s true: that is, the more important the issue, the harder it is for you to be able to figure out what your impact was. There are other players on any of these issues, but in order to make this particular one work, you have to be able to deal in the counsels of classified information, because this involved defense, intelligence, other agencies, as well as the civilian agencies. The fights were between State Department and Commerce, for instance. So you need someone within the White House to be able to orchestrate those folks and pull them together in the name of the President.

**Johns:** As far as the outside, sometimes we would press to bring something to the forefront because it would be a critical stage in terms of the economy and industry’s concerns. So we could be pressed into action by the very interest—and that could come from industry people or
environmental people or, for that matter, national security people or State as it related to treaties or so on.

So we were an honest broker. They knew we would listen. They didn’t know what the outcome was or where we would end up trying to trade off the concerns and interests. But being seen as an honest and knowledgeable broker was an important part of our ability to be one.

**Martin:** Let me ask the question again in a slightly different way. The story about the next generation of vehicles and the GPS, this seems to be a Government-created and -induced move of technology to the public sphere, let’s say. Are there other cases that you dealt with where the pressures started with business and then moved to Government, or are you an entrepreneur in most of these technological initiatives?

**Gibbons:** In the old days, generally technology flowed from the defense community to the private-sector commercial community, because we had such a lead following World War II. That has pretty much turned around now, where technology is flowing from the commercial sector into the defense sector. The private sector saw the markets, for instance, in miniaturization of electronics. That market is immensely greater in the civil sector than the market just for defense. So the front edge of many of those technologies is driven by private investment in the private sector. So it’s not like the flow of the Gulf Stream reversing itself, but it’s a little bit like that. The old rag was that progress in technology occurs by spin out from the military sector. That’s the way it used to be, but it’s not really that case anymore.

**Johns:** Let me raise another element that is a very important piece of the action. That is, as the discounting of the cost of money that companies do, it defines how far in advance they can make an R & D investment before it has to start paying off. This creates a very real R & D horizon. You can have brilliant people in industry dying to do something, but they can’t get it past the accounting department, or maybe even the lawyers, if it looks like it is going to bring an uncertain risk to the company’s business. All of those things weigh.

What we could do from an entrepreneurial point of view is look around strategically and say, “You’re going to get killed if the R & D investment that is over your investment horizon isn’t made, because these other guys, whether they are a market or a quasi-market economy, may be making those investments, having less discount demands. So we the Government will contribute, let’s say, half the money in order to artificially extend your horizon because we believe it is also in the national interest, or the national security interest, or the economic interest—and usually it is all of those—to not lose the lead that we have in a particular technology.

SEMATECH [Semiconductor Manufacturing Technology] was a very good example of that kind of organization. I would sit and argue with Craig Barrett, no slouch at argument, and our lab people, who were experts in material science and so on, whether Intel was in fact looking beyond silicon, and should we be looking beyond silicon? I guess Craig would never concede that they would ever let anyone catch up with them. They didn’t know about AMD [Advanced Micro Devices] at the time.

**Gibbons:** Flat screen is another example
Johns: Yes, flat screen is another example. And, incidentally, I can’t resist commenting that TI [Texas Instruments] is introducing the mirror thing that was demonstrated to us. That, to me, was a world-class Rube Goldberg.

Gibbons: I couldn’t believe it.

Johns: They’ve actually made it commercial. It's astounding, tiny mirrors at the pixel level that are selecting colors from layers and creating a picture that can be competitive with, say, plasma—amazing. It has just come on the market. That was one of our display R & D initiatives that, again, were motivated towards this R & D horizon. The more globally competitive you become, the more sensitive you are to investing to keep, to make innovations—the 10 percent or 20 percent improvement to keep you competitive, rather than the larger investment with the longer term and a higher cost.

Gibbons: And we have enjoyed such an enormous technological lead since World War II that we weren’t accustomed to other folks being right on our tail, if not ahead of us. That’s a realization only over the past 10 years.

Johns: We were correctly afraid of the Japanese industrial machine, because they had demonstrated with their constant improvement programs, and just in time manufacturing, and the psychology of how to build an automobile and other complex equipment, that they were moving ahead of us at a tremendous pace. We were concerned with labor costs, and they were concerned with the production line that didn’t have anything that would fail when it came off the end of the production line.

Walcott: All of this came about at a time when the debates in this country were about industrial policy: did we need it? What would it be? Were you not, in fact, smuggling industrial policy in?

Johns: Damn right.

Gibbons: Not trying to smuggle. I was very explicit about the legitimacy and logic of industrial policy properly framed. I said, “Look, start with the Constitution. We encouraged partnership between the public with its collective adventure in science and innovation and the private sector. Look at the development of the telegraph.” The first demonstration of the telegraph was Samuel F. B. Morse, with a Congressional appropriation, to build a line from College Park, Maryland, down to Washington. I said, “Look at the bursting boilers.” The old boilers used to blow up. At one point so many of them blowing up so quickly that they realized they had national problems. So there was a federal R & D effort (successful) that solved the issue.

Look at aeronautics; look at higher education; look at agriculture. All the way across the board, it is a partnership of public and private funds where it is a win-win situation with mutual self interest. That’s been our industrial policy since the time of the writing of the Constitution. So what’s wrong with an industrial policy? The problem is that critics were using that same word for something else, and they were using it incorrectly, I think. So my attempt has been to pooh-pooh the idea that somehow “industrial policy” is a thing to be eschewed.
Johns: Picking winners and losers is what they’re trying to say.

Gibbons: Yes, they should have said—and I said, “Do you mean like the Edsel from Ford?”

Morrisroe: One question always when there are interagency organizations created in the Executive Office of the President is, To what extent are they tools for the White House to exercise—perhaps “control” isn’t the word—but management of the departments and agencies, and to what extent do they become tools for the departments of agencies to have entrée into the White House?

Gibbons: Both.

Morrisroe: Can you give examples? We’ve seen examples of the former. Can you think of any examples of the latter where either the Office of Science and Technology or the Council became vehicles for department or agency to get their initiative or agenda from the White House?

Gibbons: When the President signed off on the National Science and Technology Council, it consisted of a long list of agencies. The first calls we got were from other agencies that were not on the list, which tells you something about how they saw this in terms of their ability to influence and continue to be a participant in White House policies and processes. It’s a two-way street.

The agencies have a lot of responsibilities, but the President has to pull it all together, beginning with the budget, but it doesn’t end there. That’s the reason we, Leon Panetta and I, wrote that annual letter of instruction about R&D priorities to all the heads of agencies. It was to try, at least in our sector of science budgets, an overarching, more-or-less-coherent picture of our research budget, integrated across all the agencies, that they should buy off on. It worked to a degree.

Morrisroe: Can you think of any examples of particular initiatives that came into the White House from the departments or agencies through the council?

Johns: I think stuff from NIH [National Institutes of Health]. Bear in mind that the primary access that any agency has is through their Cabinet member, so that urgent things tended to be through the Cabinet member—unless the Cabinet member had failed, and then in desperation they would want us to sell the urgent—

Morrisroe: Was the Cabinet member going through—so maybe a first venture—through the White House or—

Johns: Yes, mainlining.

Morrisroe: Then, secondarily, if that did not work, perhaps try to persuade you?

Johns: Then if you have what you might call the “important”—those that have long-term implications—there a Secretary might not want to use up their access to the President, and that
would attempt to be sold through the OSTP. As far as the way we were set up—because we were active—if you were to try and do that to Marburger today, you wouldn’t have a prayer. You might as well go sail it over the fence.

Morrisroe: Were there any departments or agencies that you recall that made most effective use of that strategy with you?

Johns: I think that NASA did. The reason is also obvious. If you’ve got an agency, which in our time had a budget of 13 or $14 billion, and you have another agency that has a few hundred million, there is no doubt that Dan had more to play with as far as making a contribution. He was very entrepreneurial. He saw the advantage of his being able to help the agencies and therefore be seen as a big player. And he was good at it. He had a patsy in me, because I wasn’t bad at it either. There were things that he could do. He could nudge his budget in a way that could have a very significant effect.

A perfectly good example was weather research. I remember stopping out at Boulder to talk with those folks about El Niño and La Niña and whether they had enough dollars and structure. The example I gave was the year before we had nearly bankrupted our insurance industry by the floods that had taken place and people wanting to rebuild because the Federal Government was going to pay to rebuild them every year if they needed to. Did we have any idea whether these rare 30-year floods or 50-year floods were going to start occurring every other year, and if so, should we have enough R & D money to find out?

What you had was a bright but friendly little crew of nine people who were working academically on modeling weather. When I asked them where La Niña came from, I got a waving of arms and talk about changes in temperature in the western Pacific. So the question was how to get enough money and enough first-rate brains working on the problem. This is not to belittle the crowd that were there. They were all serious academics, but they just didn’t see themselves in such an important role with regard to our future economic welfare. Kathy Sullivan, at the time a scuba diving buddy of mine, a chief scientist at NOAA at the time, picked up the cudgel to push that. I must say it took some conviction.

But it’s an example of what you can do, concerned behind the scenes. You can then help them enliven their budget and also—here’s an opportunity to turn to Dan, our R & D banker, so to speak, again, because of related things where they could look at Earth data and help make the bridge between large computer-modeling and understanding the difference between climate change and weather, and never the gulf shall meet—weather being five days and climate being the rest.

Gibbons: Anything longer than five days. It used to be three days.

Martin: I have a question about some of the technology successes that you had in terms of getting technology to industry. GPS seems like it’s definitely one. Cars, flat panels—

Johns: Internet.
Martin: It’s on my list. What were the failures? Were there ideas that just didn’t fly or industry didn’t pick up on?

Johns: Good question. I don’t want to be like W: “Gosh, I can’t think of anything we could have done better.”

Gibbons: What we tried to do is to understand that the marketplace has its own intelligence about when an idea makes sense in terms of spending real money on it, which is commercialization. Government doesn’t know that much about that end of the business. Government knows and is an active partner at the research end. But as it moves up towards realizable technologies, it is more and more the onus of the private sector to make those investment decisions.

So we didn’t try to take finished products to the industry—that’s kind of silly—but rather have industry involved early enough so that as soon as they began to recognize opportunities, they could pick up and run with them. Or if they couldn’t, we would understand why: namely, the time horizon was too long, or uncertainties of regulation were too great. That’s where the Government can come back in and help overcome some of those barriers. But I don’t recall a single instance in which the Government, during the Clinton years, came out with a product and then tried to find an industry that would simply take it and run with it. Do you recall any?

Johns: No.

Gibbons: Because that’s putting the cart in front of the horse. In fact that was one of our arguments, that people doing technology development, even if it’s in, say, a national laboratory, should have on their advisory committees the very kinds of people who might be the ones to pick it up and run with it down the road a ways. That’s too often underattended in the way you think about how you plan your work when you’re in that interface between information for information’s sake and information that is moving toward the marketplace.

Johns: I would say our largest failures were less in the catastrophic realm than in the degree-of-success realm. To try and coordinate 22 agencies to think and cooperate and understand the benefits of doing that is always a matter of degree and has a great deal to do with the personalities in place in these various places. We could have done it better in the sense that if we had been truly successful, they would still be doing that to a substantial degree. I can’t say they aren’t, but I can’t say they are either.

It’s that kind of thing where if the initiative fails—the Bush administration shut off the Partnership for a Generation of Vehicles. That was because the auto industry came in and said, “Shut this program off. Instead, say, work on hydrogen for some day in the future.” Basically they wanted the monkey off their back, and what they were thinking of was in terms of today’s budgets and their wanting to move to the short-term horizons. So we didn’t instill a longer term understanding that would overcome the short-term urgencies that the industry saw. Those are all failings.
Gibbons: There’s another related activity. OSTP was frequently called upon to do a little refereeing within the executive branch on issues such as acceptable radiation standards, the arguments between, say, EPA and DOE [Department of Energy]. And frequently they could go to the Academy of Sciences to try and get some resolution on that. But we were drawn in on such things as what should the rules be on mercury in the environment? Because it’s so different, whether you’re fishing off the Maldives or living downwind from a coal-fired power plant.

So we were called on to—and this is pretty tricky because these are regulatory agencies—but we were called on to convene agency folks over at the White House to talk about their differing positions and whether or not one could narrow that difference so that we could reach a conclusion that was acceptable across Government. We didn’t very often succeed, because most of these people had pretty much backed up into their own corners. But that’s the kind of role, I think, that is appropriate to play inside the White House on sociotechnical issues. So you have the clout of the President behind you, you have agencies serving the President but disagree with each other, and you’d like to get that agreement done in-house instead of up on Capitol Hill. That has had mixed success, but I think it is important to continue to try.

Morrisroe: Is it the President who calls you in when there are differences between—

Gibbons: No, we call them in, but we knew that the President was interested in getting things resolved at the working level.

Morrisroe: So you could do that by your own initiative essentially?

Johns: Another area that we tend to forget, but the battle between high-definition television was one that we won, and there were those who were supporters and those opposed. A second aspect of that was a fight on our part to change the rules such that the cable industry didn’t have this huge monopoly advantage over a competition from satellite, and we won that battle as well. When you win the HD [High Definition] battle, you free up the VHF [Very High Frequency] channels for other and important use like coordination between agencies and emergency first-responders.

You also try to push the broadcast industry in that direction and still figure out how to protect the poor person who should not have to throw away his TV or her TV and buy a high-definition system. So you require that it work for the legacy systems over a significant period of time. We can work out those kinds of things between competing industries who hate each other—the broadcast industry, the cable industry, the satellite industry—and DoD’s position with regard to satellites and the preservation of the public interest. I think we were successful in that endeavor. It just needed somebody like us to be able to do that and have some clout behind us to be able to cause it to happen.

[BREAK]

[Three pages have been redacted]
**Morrisroe:** Perhaps one of the—or two, I should say—most significant science issues coming into the administration, and certainly the two that were among the largest budgets, were the supercolliding superconductor and the international space station. As you mentioned briefly before, those were two issues that had to be confronted almost immediately after you arrived, as part of the budget discussions. You said there was a meeting on it that included at least Gore and Clinton and others. Can you tell us a little about the considerations associated with both of those issues early on and what the President’s and your positions were on those?

**Gibbons:** I’ll take the first cut. Skip can clean up my act and fill in the voids.

**Johns:** The space station is the one I’m most familiar with.

**Gibbons:** Let’s go to SSC [supercolliding superconductor]. I gave some of my most passionate testimony, which lasted about ten minutes, before the Senate on the reason why the SSC was such an important investment in national exploration of the very nature of mass and gravity, and unknown but for sure new discoveries. That testimony followed on meeting with the President, the Vice President, and others about what the administration position should be on SSC. The problem was that the project was well along in terms of capital investment. The hole was being dug down in Texas, and there were some real problems in terms of staying on schedule, staying within budget. The superconducting focusing magnets for the beam were giving lots of problems.

Congress was gunning for places they could cut the budget. We looked around, and the whole nation had avidly favored building the SSC, until they picked a site for it—that is, as long as any one of the states was a candidate, and there were 50 proposals for it. As soon as one state was chosen, guess how many states stayed interested in the thing? So that was a big problem. The decision of Clinton at that point was—and I think a wise one—we can fight only so many battles, and the battle has already been joined on this one in terms of the problem with the magnets, the problem with the management, the problem with budget, and as Clinton pointed out, the disconnect between superconducting supercollider and what it might do for Harry Homeowner and his family. He distinguished this from, for instance, money for the NIH or other places, maybe even like the NSF, where people can get a sense of how that activity connects to their life.

So to begin with, even with the ground being level, the SSC would be a hard sell. So the President said, “The science is valid and we should support it, but we must not lie down on this one and give up too many of our chips to try to make this thing survive.” We had not done a good job in terms of internationalizing the project. It had been declared as a U.S. project: George H. W. Bush wanted it to be a U.S. project. It was a leftover Cold War attitude toward big projects. It failed in Congress on an appropriations hearing. That’s the sum and substance of it.

But things were different with respect to the space station, because I reviewed the space station and I said, “It’s clear that it’s out of hand. We’ve spent many billions of dollars on it since the Reagan years, and there’s not a single piece of hardware ready yet on this thing.” My suggestion was that we not only undertake a redesign, downsizing, but that we should seriously change the direction of the space station so that rather than a U.S. and maybe European/Japan effort, we ought to reach out and seek out a way to get Russia as a full partner in the whole process.
have the equipment, they have the know-how, and they needed, as Clinton pointed out, some way to turn those assets in a productive direction like working with the U.S. and other Western nations—and instead of taking that same technology, assets, and building rockets for China or India or whatever.

So our decision was to get right in behind space station, announce a redesign effort and a downscaling, and to woo the Russians into joining us as an international effort. We put together a team, went to the Hill, talked to the committees of jurisdiction. They seemed to be in favor, although it was almost an even split about what to do. So there was a major campaign in which the President and Vice President personally joined on the phone lines to people on the Hill to support this change of direction but not to zero out the station.

I could have easily argued that we ought to zero it out, but Clinton brought out some points I had not thought about. First of all, as an instrument of foreign policy with respect to the Russians and the like, number one. Number two, as a continuation of an effort of the U.S. space-technology activities, which were inevitably going to downscale after the fall of the Berlin Wall, an industry that had been built up for reasons of Government need. The station would be one thing that could help sustain that industry along during some lean periods. And the project was undoubtedly one of the major technological challenges that had ever been undertaken in peacetime. When you think of the unforgiving environment of space, the things you have to do to make the complex system work, and along with that, an ability to have working partnerships with different countries around the world was a new step in the direction of international science and technology.

So we took that tack. We lobbied on the Hill. My task with Skip was to organize a group of people to undertake the analysis of the space station and its cost, its activities, and just what to do about it. I recommended Chuck Vest, the president of MIT [Massachusetts Institute of Technology], as chair of the task group.

**Johns:** And a good guy.

**Gibbons:** A terrific guy. I said, “If we can get Chuck, then he—along with some advice from Dan Golden and others—can put together a sterling committee to do a fast but thorough job of a reevaluation of the space station, not only how we can get it under control budget-wise but also how we can resolve questions like, what about Russia? How well might that work?” And it worked. We had to go like a bat out of hell, but we did persuade Congress to go along with it. In fact they voted the appropriation by a majority of one vote, as I recall. But it meant a massive change in direction of the station.

People said, “You're not going to do any good science up there in that station.” I was attacked by a colleague in the physics community. I said, “It’s not simply a scientific activity. There’s some science in it, but it’s more a technological challenge to build something like this under unforgiving conditions and have it work. Second, it’s a chance to get to know and learn how to work with the Russians and other new parties in the venture. Third, we might even learn a lot of things out of it.” So it was on that multi-value basis that we were able to continue. That ate up a
lot of Skip’s time, a fair amount of my time over the succeeding years because it went through the Perils of Pauline.

We chose to tie in with the Russians on their existing space station, and we learned a lot out of that process, although at one point I had to report to the President every day with a note about what’s going on with the Perils of Pauline up there, because it was about to fall apart. It had fires. It was a mess. But that was all part of an important learning experience. The outcome was predictable: namely, a new positive relationship with Russia on working together on things. The second was a reaffirmation of our international partners in Canada and Japan, who were already building pieces for the station.

Third was the change in orbit for the station that had been chosen earlier in order not to avoid Russia, but rather to be able to fly over Russia and therefore be able to use the Russian launch systems. We didn’t realize it at the time, but that’s the thing that saved our lives when we had the crash of the shuttle and we had to totally depend on Russian resupply to keep the project alive. It was a long and arduous task, but that was it. Clinton decided, “Yes, we’ll go for these reasons,” and it all worked out. It was an arduous process, because in behind this process was an attempt to try to get the Russians to orient their whole rocket-technology people away from supplying other countries with rockets, which was giving Russia a nice cash flow but put their efforts and focus on this non-military program.

**Walcott:** Who else in the White House, besides yourself and President Clinton, were involved in making the decision to stick with the space station?

**Gibbons:** Panetta, Gore. Do you remember who else?

**Johns:** Golden and me.

**Gibbons:** Dan and you, of course. That goes without saying. I’m not sure about the National Economic Council, but they saw the wisdom of the impacts on the aerospace industry.

**Johns:** My suspicion is State, but I can’t think who, only because of the importance of walking away from our international—

**Gibbons:** Cathy Campbell. A few people in the State Department recognized the foreign policy value of having this kind of new partnership and also of not canceling out with Japan and the UK [United Kingdom].

**Johns:** Do you have any sense that [Anthony] Lake was involved as far as—

**Gibbons:** Tony was passive on it but not negative. He just wasn’t a heavy player on it.

**Morrisroe:** Were there any in the administration who were actively oppositional?

**Gibbons:** Who wanted to kill it?
Morrisroe: Yes.

Gibbons: They were a number on the Hill.

Johns: In the budget crowd. Truth be known, we wanted to kill it if they couldn’t get a better budget direction.

Gibbons: And broaden their mission.

Johns: The problem, first of all, we did have these very serious international commitments from Japan and ESA, the European Space Agency, and Canada. Then the very serious effort to bring in Russia also changed the design in the sense that we needed to guarantee that Russia would have certain paid jobs with regard to the space station.

Gibbons: Yes.

Johns: With regard to taking the place of things they might sell elsewhere. And in addition, not having to develop a safety vessel—

Gibbons: Since the Russians already had one.

Johns: —to bring people home, we could use their vessel. We still did designs in case it fell through, because we had to have some backup, but it still saved a lot of money buying things from expensive folks like Boeing and others.

One of the more important cases we had to make was the benefit of the space station, because the science community wasn’t very thrilled with it. The private sector wasn’t very thrilled because NASA was unwilling to guarantee them a—when you go up and test something in space for use in space or for developing a product that you couldn’t develop elsewhere, you need to do that on a repetitive basis. Since industry couldn’t get a guarantee of that, they were very neutral, other than those who were going to contribute to building it.

The second thing is, NASA had a macho personality about the whole manned-space-flight program. They refused to acknowledge that we didn’t know how to get anybody up in space, leave them there for a year, and have them able to walk in the future or have their blood pressure or heart condition or muscles or the rest of it intact. So that long-range space travel was out of the question until we figured out how to solve those problems. We knew that certain things—limited artificial gravity and other things—wouldn’t work. So there was a very logical use of the space station.

Gibbons: To define our limits.

Johns: We also wanted to stop building $2- to $5-billion un-manned exploratory missions that, by the time we launched them, after they’d been developed, they were old technology, and use the “faster, better, cheaper” theme. An example of it are the craft that are working up on Mars, designed for 90 days and still working after five years or whatever. That program was eminently
successful. But not having to invent missions for the station, and assuring that it was going to be redesigned with a simpler, closer target, get the savings from the Russians being tied in, and getting them off of the focus of Mir, which we were considering to be increasingly dangerous for every day it spent up there. We wanted it brought home, not as a substitute space station. So it was a successful campaign to do those things.

Morrisroe: If the new redesign of the space station, in part, allowed us to meet our previous commitments to other countries who were involved but had the dual objective of bringing Russia in, was there concern that that might be our plan but that Russia would not meet our desire?

Johns: Yes, mainly our concerns were that Russia would try to do things that they were not able to do, principally for lack of money. So we had to hedge in the sense of paying Russia. And also, in the event of failure, there were certain critical things, like the rescue vehicle, that you couldn’t leave to chance, where you’d have a timeline that was too far gone to be able to use the space station. We did hedge those.

There were the naysayers, of course, as there always are. First of all, the manned-space-flight crowd, and there are many of them—the L5 Society on down—who believed that it’s human destiny to go to the stars. So anything that implied that those budgets were going to be cut as a percentage of NASA’s budget always raised hell. There were those—the Richard Perles of the world—who said, “You can’t trust the former Soviet Union, Russia, to do anything they say they’re going to do. They’re going to blackmail, undermine, whatever.”

In point of fact, it was critically important to the Russians themselves to be part of the effort. The reason is—and we met many times with the Russians, regularly, in the White House—it was critically important to them to continue to see themselves as the other space-faring nation. And it was critically important to the Russian public to see Russia continue to do that and not have failed. Politically these folks said that. For them it was an ability to carry on as a space-faring nation where they were fearful that budget limitations were going to force them out of that business and where they would be supporting their rocketeers selling to the Pakistans and others of the world that we weren’t keen on.

So it was a very useful political purpose internally for Russia. It also gave them an ability to say, “Look, we know you Russian folks don’t trust the West, but we’ve got this program that, in effect, is providing good will, making it worthwhile to look to the West,” as far as their wanting to pursue open markets and that sort of thing. So it was a real linchpin in our Russian relationship and the desire to drag them into the Western sphere of influence. It justified doing something that was hard to justify, especially on science alone. But even on technology alone, it was hard to justify.

Morrisroe: In dealing with Congress on this, did you and your office take the lead, or did Congressional liaison take the lead in lobbying and you worked with them? How did that operate?

Gibbons: Congressional liaison took the lead in terms of organizing various visits to the Hill to talk with key members about the station and about the need to continue support for it. We had
meetings in which three or four of us would go up, frequently accompanied by Al Gore, for instance, to talk about the thing and get their thoughts on the matter. There was a group (bipartisan) organized within the House to be supporters of this new direction, which was a big help. There were others who were steadfast in their commitment to say, “We want to kill this thing. It was a bad idea to start with, and there’s no need to prolong it.” But the bottom line was, when it came to the vote on the budget, they approved it by one vote the first time, by a large majority the next time.

Morrisroe: Did it require much political capital of your time or the White House’s time after that first year to maintain that majority?

Gibbons: No, but during that first year, it took a lot of our time. It took a lot of attention.

Johns: It also took attention in the subsequent years, but just nothing like the first.

Gibbons: The attention in the later years was to make sure things didn’t go awry—the fires on the Mir and the rest; an American astronaut up there on the rickety old thing where the bolts were falling off. That’s why I had to report to the President once a day. But that was riverboat gambling. You have to take them every now and then.

Martin: Can you talk a little more about the coalitions that were being formed in the House—I assume it’s the House we’re talking about—both supporting and opposing the space station? What were their politics like? What were their interests? I assume the Texas delegation wanted to keep it.

Gibbons: All the aerospace states loved it, but some Democrats like, I guess, Tim Roemer were very much against it. He was following his traditional position he had taken earlier. He had taken a hard position, and he wasn’t going to abandon it. Again, this was pretty early on in the administration, and they were at least willing to talk and to listen. Later on, the Congress got so hardened and dominated after the 104th revolution that they didn’t want to talk to anybody but themselves. So we couldn’t have done it several years later.

Johns: But if you identified coalitions, there were some very unholy coalitions: the arms controllers who were anxious to see Russia diverted from those activities—and these people tend to be liberal Democrats. You had hawks who more typically were very supportive of the macho side of man in space, which had the Air Force colonels who always saw the notion that we should have weapons platforms in space, and the crowd that says, “You reap what you sow, and therefore you should be making peaceful use,” those who saw the advantage of working with the Russians.

And so, as is the case in many of these complicated issues, there were a bunch of unholy bedmates that came together, and in fact we were able to convince them it was a worthwhile thing to do. There were those who wanted to see the progress, were relieved to hear NASA acknowledge that they didn’t have supermen in hiding who were going to be able to go in space and come back five years later and still be living, breathing humans. So it was across the board. That’s not uncommon in any complex issue where there are a lot of players.
Gibbons: Like a lot of other complicated things, if you pick out one feature of it and attack it as you consider that’s the weakest feature, then you can frequently kill it. The attacks on me as a member of the physics community from years back was that the station isn’t going to do any decent science.

Johns: Except steal research money.

Gibbons: Except take research money away from real research. They didn’t want to hear or talk about the other rationales for the station. So that divide-and-conquer attitude was amongst each of the players.

Johns: And inside of NASA. Remember, there is an “aeronautics” in that National Aeronautics and Space Administration. The aeronautics people were worried; the science people were worried, and for good reason, because supporting the space station—the least defensible from a long-term scientific, intellectual-curiosity point of view—was the one that was the most expensive and promised to continue to be more expensive. The overruns of the past, which had produced nothing except pork in various districts, was the history that the space science community could point to.

Morrisroe: Where did Golden come down?

Johns: Well, Golden is an entrepreneur, and he wanted NASA to be making significant contributions in all of its areas of responsibility. He was not a nut on the space station, either for or against, but he was completely supportive—and supportive of a White House that was going to have the clout to take it off of its old track of just being pork spending and put it on a realistic program and defend it properly. He wanted success.

Gibbons: As Dan said, the head of the Russian space program, Yuri Koptev, and Dan used to stand on opposite sides of the iron fence designing satellites to either destroy or look at each other. It was so refreshing to think of these guys working together on something instead of trying to shoot at each other.

Johns: Dan was a senior engineer in, I think, Northrop, in California.

Gibbons: Or TRW, one of the two.

Johns: Developing—

Gibbons: Spy satellites.

Johns: —various types of space devices. A good engineer and an entrepreneur. He was a real asset for us.

Gibbons: One of our continuing struggles with NASA was that NASA was still being governed, influenced in an unhealthy way, by the man-in-space-flight people. According to them our
manifest destiny is to go to the stars, not with machines that can be the extension of ourselves, but literally with corn-fed computers out there. We managed to push that mindset down a bit. I spoke about it some, about using space exploration as a way to understand the universe, to discover, to learn, but doing it by teleoperation, artificial intelligence and other advanced technologies that would have very clear economic applications here on Earth for doing things better.

But I found, throughout the time in the White House, there were two kinds of folks who would maybe nod their head but absolutely didn’t agree with me. One kind was space as the final frontier for our defense community—the space, what did they call it?

**Johns:** The high frontier.

**Gibbons:** Yes, but it was the space corps or something like that.

**Johns:** No, Space Command.

**Gibbons:** Yes, Space Command.

**Morrisroe:** The video game.

**Johns:** Pete Worden and company.

**Gibbons:** Pete Worden, who just retired as a Lieutenant General.

**Johns:** Yes, that’s what I meant when I said “the colonels.” These are the Space Command colonels out in Colorado Springs.

**Gibbons:** So it was a struggle with all sorts of stakeholders and with a lot of almost intransigently committed people to man in space. That’s still with us. It came through with the announcement by the Director of NASA the other day that, “We’re going to follow the President’s vision, and we’re going to go to Mars with men.” It’s picking these goals that will cost a lot of money but won’t get you anywhere, sort of like this hydrogen car. You don’t pick something that actually enters the marketplace anytime. You just pick something to help spend money and keep the Government starved enough so that they can’t get into the—

**Johns:** That’s the worst kind of industrial policy.

**Gibbons:** That’s industrial policy.

**Morrisroe:** Where did Clinton himself come down on this? Did he have to be persuaded to your position? Was he a manifest destiny—

**Gibbons:** I never sensed—

**Johns:** Trusted his people, wouldn’t you say?
**Gibbons:** He went along with us.

**Gibbons:** And Gore did, too.

**Morrisroe:** So would it be fair to say, then, that he didn’t come in with a strong position on space?

**Gibbons:** No, he was interested in things but I think his biggest concern about the space station was that, “We are eliminating,” says he, “much of our aerospace resources because the Cold War is over. But this is one major thing that could provide that industry with an opportunity to continue to spend public funds in a very productive direction.” So to him the domestic economic impact of the close of the Cold War was as important as anything else in space. But he did understand that this facility could be perhaps the only way we could find out whether—and if so, how—people could live in a weightless environment for more than a few weeks at a time.

So there were some intriguing things that needed to be clarified in terms of that whole technology and whether one should go for these big systems or go onto more small, instrumented probes. So I would say he very much favored the idea of doing this as a means of a new relationship with Russia and as a way to help preserve an industry, or at least make the transition more palatable. I think those were two of probably the most important factors in his decision to say, “Let’s go for this thing.”

**Johns:** You know what we didn’t mention, Jack, but it’s true that the end of the Cold War meant were you going to close Boeing and Lockheed and North American and what have you, or are there missions that will preserve our knowledge? You go through a period of ten years of not doing something—let’s say, building a rocket—and you will forget how. You will have to build a team who has to figure out how to do it again. It’s why it will take us a long time to go to Mars. I’ve scuba dived for 20 years with Buzz Aldrin, and there are not a lot of Buzz Aldrins around to help put together something to go to the moon. You have to recreate the capability.

But some of those were important for national security, and we knew that we were going to have a new national security budget where we did not have a current and immediate adversary threatening the United States. So you could not allow the country to forget how to wage war. So there was that advantage as well with continuing unmanned space flight. We also had a hell of a lot of satellites. We have even more now, which have a certain vulnerability. We’re more vulnerable to the loss of those satellites than any other nation. So their ability to defend themselves, if not shoot at Earth, which we’re not terribly keen about, is not a trivial consideration. You do that by dodging and running and other things without having to have a space war up there.

**Gibbons:** That’s another one of my failings, I think. I was convinced that the country that depends most on satellites for their economic well-being, as well as their national security, is the U.S. Therefore we should be maximally interested in keeping space free from this kind of war games. Therefore, of all the countries who should be protecting space from the invasion of offensive weapons, it ought to be the U.S. And yet we had the Star Wars guys saying the reverse:
“We ought to go up there and build these great weapons to protect our satellites and maybe use space as a way to go after other countries’ assets,” which, to me, is just an inversion of the reality of where we were in space technology.

**Johns:** At the time, it was threatened to be done by us when we were in the Cold War situation with the Soviet Union. All it meant was that whoever shot first would win, and all that would do is drive the Russians, who had very inaccurate weapons and very large warheads, to pull the trigger first. They had a much less effective detection system of being threatened than we did. So, suddenly you would make the world a lot less secure. This was during the Reagan era.

As you went through a period where they would be on a hair trigger and we would surely lose in terms of loss of population and those kinds of outcomes—and if you consider these systems, we could put up a tremendously—if we knew how—expensive, war-making platform up there. And one of the first things you learn in space is how easy it is to shoot something down when all you have to do is calculate when it’s going to come over and shoot something up.

**Gibbons:** It can’t change course readily.

**Johns:** It’s the simplest thing you can do. So it isn’t apparent that these outcomes are very favorable to be aggressive and putting things in place in space, for example.

**Walcott:** When you were spending the peace dividend, when you were redirecting effort and resources away from Cold War military purposes toward other things, at any time in your office did you think about the kinds of military challenges we now face: things like proliferation, terrorism, nuclear material traveling around the world? Did those things come up?

**Johns:** We talked about those things a fair amount this morning.

**Morrisroe:** The plutonium.

**Johns:** As far as the weapons, as well as the enriched materials, and working with the Soviet Union, which is where the greatest risk was and is.

**Gibbons:** And remains, yes.

**Johns:** Not that it threatens us, but their stockpile was so huge that it represented what could be proliferated.

**Walcott:** Were you engaged in anything that would be, say, technologically relevant to the current efforts to ferret out terrorists and that sort of thing? Was anybody thinking about that kind of thing at that time?

**Johns:** Our greatest weakness in that era—and I don’t mean OSTP, but I mean the country—was an increasing dependence and reliance and expectation of performance of remote sensing in order to keep track of terrorists and what have you, at the cost of our human intelligence. So the Clinton administration did not do something that would offset that further—I mean, would make
it better. They did not improve that at all—not maliciously, it was just that the importance of
human intelligence had been subsumed by the intelligence community, the CIA [Central
Intelligence Agency] notably, which is where a lot of R & D money was.

**Gibbons:** And by the aerospace technology.

**Johns:** Yes, to in effect believe. So the Director from CIA and others—and NSC [National
Security Council], who were primarily responsible for that sort of thing—continued to be at fault
during that entire era. With regards to arms control, the Clinton administration was much more
aggressive in terms of arms control than the prior administrations had been and the subsequent
administrations have been. I mean, they understood arms control, but they understood how to use
it, for example, in the relations with the Soviet Union.

When you defined the worst problem for proliferation, it was loose nukes—I mean, head and
shoulders above anything else. We put a lot of pressure on Russia to not sell, notably to Pakistan
but also to Iran. And there are sticks, as well as carrots, to work in that endeavor, and believe me,
we used them vigorously.

**Gibbons:** It’s interesting that the Nunn-Lugar legislation passed before Clinton came into office,
didn’t it?

**Johns:** Yes.

**Gibbons:** Yet it was totally unused by George Herbert Walker Bush. The funds lay there, and we
saw the opportunity of using those funds to be creative in the way we opened up some avenues
of communication with Russia. We organized a thing called the Cooperative Research and
Development Foundation, which a couple of OSTP associates stitched together $5 million that
we got out of Bill Perry from the Nunn-Lugar fund, $5 million from George Soros, and $5 more
million from the Science Foundation.

We created this bi-national foundation to help bring funding to science projects jointly proposed
by Russian scientists trying to move away from defense research and their counterparts in the
U.S. This thing was cobbled together in the most remarkable way. But it’s still going on, and it
has grown quite considerably. There are other things that we tried to put to work using the tools
that were at hand. I think people slowly began to realize that this kind of technology approach
was an avenue for opening a dialogue with Russia for which there was no substitute. It was fun.

Then, of course, Clinton devised the Bilateral Commission, Al Gore was the U.S. head, and the
Prime Ministers of other countries were there. This was Russia, South Africa, China ultimately,
several others. We got drawn into that activity because our little shop also had to do all the
science and technology part of that Bilateral Commission. A lot of things came out of that that
sustained the notion that we can work our way toward a time in which Russia and the U.S. are
seen as allies against common threats, one of them being terrorism.

**Johns:** It’s interesting. People don’t realize how brilliant Russia was with regard to certain areas
of their interest, like their military R & D investments. A good example: they had the Tupolev
Tu-144, which had flying canards—in effect, rotors in the front. We had not mastered that. For $10 million, they allowed our aircraft people to go over and put a glove on those airplanes and measure. That in effect brought us a generation ahead of anyone else working on supersonic transports, because the Russians were already ahead of us. We found in the space areas that the Russians didn’t have our computational capability, but their math was better than ours....Necessity drives invention!

Gibbons: As they described it, they didn’t have the hardware, so they had to be very smart with their software.

Johns: So they used math computation in order to do much of their design work in space, and the outcomes were not always the same as one would get from computers. We learned a good deal about how to improve our design efforts from working with the Russians. And there are many more examples. But it was a very fruitful effort that started out as sort of “make work for the Russian scientists.”

Gibbons: Let me give you another brief example. The Russian scientists were quite distrustful of the U.S. for some time, coming out of the war. We were interested in helping them protect their nuclear weapons materials and the like. They did not want to invite us to come over and see what they had. We finally figured out to invite them to first come see ours. They sent some smart folks over, and we showed them Sandia and Los Alamos and other places, much to their astonishment. They went back home, and then we said, “Now how about our coming to see you?” They basically had to say yes.

That opened up the opportunity for us to begin what ended up being new facilities for sequestration of their materials that they just didn’t have the money to do themselves. We’re a lot safer off now by investing money in helping Russians store their plutonium. So you have to be entrepreneurial and take advantage of what you can do. Fortunately we had a President who understood that and was willing—and a Secretary of Defense like Bill Perry willing to make those investments.

Johns: Another good guy.

Gibbons: Yes.

Morrisroe: We interviewed him recently. Do you want to turn to budget talk?

Martin: Yes, we should do that. Kind of dry but important. I figure we should start with the story of how you develop budget authority outside of OMB. What was it, $80 billion that you controlled?

Johns: Seventy-two.

Gibbons: We never claimed to control—

Johns: We never controlled any of it.
**Gibbons:** If we had claimed that, we would have shot down. They would have said, “We’d like to help you out. Which way did you come in?” OMB holds, deservedly I think, very strong strings on budget control. But OMB was happy for us to work with them on issues of science and technology to the point that we ended up with Panetta and me writing a joint letter, which I first drafted, to the heads of agencies every year in the spring before they started their budget process.

What we tried to do was to take our best understanding of what Clinton was after, and Gore, and talk with agency heads about their budgets and about budget priorities. How well did these match into the Presidential prerogatives? For instance, the Partnership for a New Generation of Vehicles, how much, DOE, are you going to be able to commit to this? What are you going to not do in order to do more of this? The same with Agriculture on renewable crops, that sort of thing.

So we made our way by working with the agencies. And then when the agency came in for their budget review at OMB, we were invited to sit in on those OMB conferences with the Secretary or the Assistant Secretary, go over their budget, make comments, and ask questions. I think that was an appropriate role for OSTP. It was not appropriate for us to do what a lot of people wanted us to do: namely, have budget control over these things, because that would lead you into an unholy and unproductive mess.

**Martin:** Even with that level of input, how did the agencies respond to you looking over their budgets?

**Gibbons:** Oh, they didn’t like it, but that’s government.

**Johns:** They also saw it as an asset and a liability.

**Gibbons:** They saw it could be helpful to them because then they would be more responsive to what the President was interested in.

**Johns:** Simply put, when we agreed with them, they liked it.

**Morrisroe:** How did the President communicate to you what his budget priorities would be? I mean, something like the fuel-efficient cars? That’s obvious, apparently; it’s a major initiative. But beyond something that is that salient an issue, how do you get that information? How does that get communicated to you?

**Gibbons:** You go at it from rather aggregated things down to disaggregated things. It was very clear to us that the President had a couple of fundamental priorities coming into office. One was, we’re killing ourselves with the budget deficits. He constantly put the budget deficit right up in front of every agency. He basically said, “We’ve got to do better; we’ve got to be more efficient; we’ve got to be smart; we’ve got to cut budgets where we can and spend it wisely. We’re not going to try to solve problems simply by going further into debt.” That was a constant theme all the way through his administration.
Then we said, “All right, what are the President’s priorities?” We had prepared several papers, which were test runs of his priorities, and they became pretty clear. We’re going to invest in a rebalancing of our defense versus non-defense R & D programs. We’re going to keep strong basic-science programs. We’re going to encourage Government-industry cooperation with the roles appropriately chosen. We’re going to continue strong support of health research. But as Clinton said, “Even if we cut health research, Congress is going to restore it anyhow.” So we had good general guidance about which way these things ought to go. Then I would sit down with my folks, and we would sit down with OMB and say, “How does that translate in terms of division of the pie of R & D, both civil and military, particularly civil,” because the DoD has a pretty heavy hand on their own 6-1, 6-2 programs. We had minor influence, but that’s a kingdom unto itself, as you probably know.

But it was up to us to remind people in budget reviews, as well as in budget advice, to keep the President’s priorities in mind and move toward a balance between defense and non-defense programs. These things don’t move very fast, but we managed to do a near rebalancing of things that had gotten way out of whack during the Reagan/Bush years and are back out of whack again now.

**Johns:** We would look at the budget to see if the initiatives, such as PNGV, were in fact being funded the way we had discussed. If they were, then we were perfectly happy with it, and we would go to OMB with them and defend the importance of those programs in terms of being Presidential initiatives.

If they were not funding them—and they had all sorts of excuses but weren’t funding them—then we might go to OMB and say, “We’ve got a problem.” Or we might go to Al Gore and say, “We’ve got a problem. You need to talk to Leon,” because that was—since much of technology was Al’s purview, he was the one, rather than Clinton, leaning on Leon Panetta, who was also a good guy. Who followed Leon?

**Gibbons:** Alice [Rivlin].

**Johns:** That’s right. Alice was a good guy too, but she was more of an economist than a technical person.

**Gibbons:** But she listened to us too.

**Johns:** She respected, knew us, and liked us for years and years. The relationships were good. So sometimes you would twist a different arm to protect important programs. There are all kinds of complications. There are some things where you will intentionally underfund to get money where you want it because you know damn well that Congress is going to put that money in there. So they’re doing this gaming of the Congress. Each agency or department is doing that.

**Martin:** Any examples of where you would strategically cut, knowing Congress would put the money back in?
**Johns:** That was much more a sport of the agencies themselves. A C-130 program might be an example—the Department of Defense wanting six and, in fact, Congress ordering 600, $30 million apiece or whatever. But those kinds of things where there is a big impact in the district of the wrong guy, whether it’s Jack Murtha or Tom DeLay.

**Morrisroe:** So did you view your and OMB’s roles to identify when the agencies were gaming and prevent that or—

**Johns:** No, you couldn’t enter into that sport. If they were gaming us, then yes we would do it, but by and large, the relationships were honest relationships, us with the agencies. They had to play their budgets in a manner that they understood the Hill much better than we could, because they lived with them on a day-to-day basis. Also, NASA especially, Dan was a master of making deals that were not backbreaking to NASA but were things that would give the strokes to the members’ districts where you had centers, including centers that would threaten to be closed that were kept open.

You can’t invent the creativity that goes on in the budget process. It’s much worse today. You hear the complaints about pork. What has happened in terms of pork has made the olden days seem trivial.

**Walcott:** Did your participation in the budget process, was that a part of your efforts to facilitate interagency communication and cooperation?

**Gibbons:** Yes.

**Johns:** But we never attempted, at least I can’t recall, swapping money between agencies.

**Gibbons:** No launch of priorities between agencies. The weather satellite stuff, all these things were attempts to help the agencies see their self interest in merging programs and giving up a little money there, and there would be a little left over there for something else. What we said basically was, “Look, you’re going to get the same money, basically, as you did last year. That’s not at issue. What’s at issue is what are you going to do with that money in terms of changing things around to have more efficient and productive operation?” They came to understand that—this I often repeated to Clinton—when you find yourself in a hole, the first thing you ought to do is stop digging. That was the whole business of countering this notion that, “We’ll just go out and spend money,” which has returned, of course, in spades with the last three Republican administrations.

We’d go over to Agriculture and talk about some new directions, either in advanced genetics or in growing renewable resources, and they would say at the Secretary level, “Fine, we’ll do that. That’s a good idea.” But then we said, “But the caveat for you is that you’ve got to do it with the same amount of money you have now. Therefore you’re going to have to cut something out.” When they’d go back and try to cut something out, the folks down the line always turned them down. They said, “We’re happy to take on new stuff, but only if you get us new money.” That was a constant struggle for Clinton’s commitment to get the budget contained and at the same time to move ahead and have an aggressive and progressive program. Agriculture was among the
worst, but every one of the agencies had their little fiefdoms, all of which seemed to them the most important thing in the world.

Martin: Can you take us through, from the time that the President’s budget drops, what your office has to do in terms of Congressional relations, through the budget process, and then the appropriations process in, say, the beginning first few years?

Gibbons: The budget process for Executive Branch agencies begins for year X-plus-one, in the year almost X-minus-one. You begin in early spring with the budget announcement from the White House about what our budgets ought to be, and the budget instructions (“mark”) to each of the agencies are then sent out by the OMB. That reflects the administration’s approach to the budget process. All that happens before April.

Between April and September, roughly, the agencies are putting together their budgets and talking with their committees and the like. That always happens. When the agencies—let’s see, in the fall, when the mark comes back from the Congress and is matched up with the administration’s budget, then you have to do a lot of scrambling, of course. But finally, when the President’s budget message is prepared in December, to be delivered at the State of the Union, you hopefully have resolved the major differences between the agencies—and between the agencies and what the Hill is likely to be looking for.

I think the biggest step is in the spring when agencies get their initial guidance from the White House and that includes the joint letter from Panetta and myself, in that case, about S & T priorities. Then there’s that long interregnum until fall when the agencies come back with their budgets and we beginning the winnowing. Then OMB starts holding sessions with each of the agencies, fairly detailed sessions. We were invited in by OMB to be a part of the discussion for each of the S & T [science and technology] parts of those agency budgets. Then in November, roughly, it all gets pulled together for a Presidential budget.

Johns: And we also had a release of what the R & D budget was going to be. When did that occur, Jack? January or February?

Gibbons: Yes, we would hold an open press conference at the same time, or the day after, the State of the Union address and submission of the budget to Congress, in which we described the background, what went in behind these budgets, so that the press had a chance in some detail to understand what was changing, what was not changing. That was always rather well attended.

Morrisroe: What about your role in negotiations with Congress?

Johns: Defense would be a better way to put it. Basically we would be asked to come up and defend the budget and the program.

Gibbons: I had to go to defend our own OSTP budget to start with, because we were an independent office in the White House.
Johns: And they used to beat us up with some regularity after the changeover to Republicans. I think of [F. James] Sensenbrenner and those folks. In general they weren’t productive at all. It was just a show to beat up the White House.

Morrisroe: For the first two years, what would be the Appropriations Subcommittee that handled your office?

Gibbons: HUD [Housing and Urban Development], V.A. [Veterans Administration], and independent agencies. That’s where OSTP was, as well as a number of the other small agencies. They always treated us fairly nicely.

Johns: I was thinking, out of the Science Committee.

Morrisroe: Was [George] Brown chair? Who was chair of the Science Committee during the first two years?

Gibbons: Well, Congress changed after one year.

Morrisroe: Before it changed?

Gibbons: Yes, George was chair, I think.

Morrisroe: He was the first year.

Gibbons: Yes, before the change.

Morrisroe: What was his relationship to the White House? Was he an ally on these issues?

Gibbons: George was his own man, but he was very supportive of science. He was adamant about having a strong office in the White House.

Johns: He was very supportive of science and of environmental issues. I mean, those were his favorites, and science broadly.

Gibbons: He banged on us from time to time. Remember the time he came in and said, “Look, we’ve got to do something in terms of a joint venture with Mexico on some science.” We sort of fudged and said, “Well, we’ll talk about it.” He said, “You’ve got to go and talk to Al Gore about it. We really need this.” We fudged and fudged. Finally I think he called Gore and said, “I can’t get these people to move.” Gore said, “Oh, yes, we’ll move on that,” and finally got it through. He had his own personal interest in things like bilateral science with Mexico. But generally he was more interested in the pervasive issue of directed appropriations, of pork, what he called “pork barrel,” and was very supportive of science in general. Couldn’t have had a more generous promoter.

Johns: But he was in no way a patsy.
**Gibbons:** That’s right.

**Johns:** He had staff that did their homework. So he was a tough advocate, but in the good sense of the word.

**Morrisroe:** Who replaced George?

**Gibbons:** When George died, or after the Congress changed, it went to Sherry [Sherwood] Boehlert, wasn’t it? Wasn’t he next?

**Johns:** No, he was the subcommittee. It was Sensenbrenner.

**Gibbons:** Jim Sensenbrenner got that job next.

**Johns:** Sorry. Now he’s judiciary, which is even scarier.

**Gibbons:** Then Boehlert took over, and he was a very fine chair.

**Johns:** Fine, good guy, Republican good guy.

**Morrisroe:** So under Sensenbrenner’s chairmanship, how was your office’s relationship with that committee? What were some of the issues?

**Johns:** You mean then?

**Morrisroe:** Yes.

**Johns:** Actually, space was their favorite dog to kick. Though there was strong support in the committee in the abstract, it was a big budget, so it was something that they could beat up on, but it was more theater than anything else.

**Martin:** So you had worse experiences in the authorizing committee rather than in the appropriations?

**Johns:** Yes, and the problems of the committee itself was such that they didn’t even produce an authorizing bill for some number of years recently. So what that did was put it into appropriations, and appropriations just plain did not have the time or the staff to do the substantive work.

**Gibbons:** Our whole OSTP budget was under $5 million.

**Johns:** I was thinking about the whole science and technology budget, the $72 billion. They really worked the numbers rather than the substance of the programs.

**Gibbons:** They looked at those budgets in the appropriations process agency by agency rather than integrated across programs.
Johns: Therefore different subcommittees. Appropriations overall was a mystery to everybody except the thirteen kings.

Morrisroe: Was there a difference under the different leaders of the Science Committee in terms of how often you were called to testify? You’d mentioned that as a special difference between the head of the OSTP and just a White House science advisor in terms of Congressional calls.

Johns: I would say that the governing thing there was what they needed, for political reasons, because of public concern over something that had been raised— that would determine the frequency of being called to testify.

Gibbons: I was seldom called to testify. I testified far more often at OTA than I did as OSTP.

Johns: So did I.

Gibbons: Because these committees typically wanted to get to people who really had the control of the money or the programs, and they logically would go to the agencies involved rather than over to the White House policy shop.

Johns: When I went, it was principally with the agencies.

Gibbons: Yes, you go with the agency head. There are a number of times in which one of us would go over as a member of a three-person or a four-person panel.

Morrisroe: For the Science Committee or for the Appropriations?

Johns: For Science Committee or Commerce and the agency involved.

Morrisroe: Did you encounter any problems with agencies circumventing the process, going directly to Congress? That’s typical, I know, with budgets. Were there any particular problems associated with the research and technology budgets of agencies?

Johns: It was not a problem. I think, under the wire, I can’t say that there weren’t some, but never really undermining that I can think of. Can you recall any, Jack, where they would take a different view from White House policy?

Gibbons: I was just trying to think. I think we tried to keep—

Johns: Hazel would have been the most likely person. She’s a very independent character. Not always right, but independent.

Gibbons: Hazel was mad at me for turning the lead responsibility for the PNGV program over to Mary Good of the Commerce Department rather than the Energy.

Johns: Yes, to Mary Good.
**Gibbons:** I’m glad Commerce didn’t ask her to comment on that. But she was unhappy with me inside of the system. I don’t think there was a lot of rancor between the executive agencies and our shop outside the, shall we say, interesting conversations we held over with OMB on budgets and where things were going and how well they reflected the President’s priorities. We did have a lot of dialogue with the agencies, especially basis for regulations on things like mercury or radiation where the agencies disagreed with each other. We’d have meetings down the hall where we’d thrash things out. OSTP simply chaired the meetings. Some of those issues are still unresolved. But that’s where the struggles between the agencies occurred, as far as we were concerned.

There was a good deal of difference between the agencies in terms of giving up some of their authority in order to merge their systems, like the space-launch vehicles. Should it be the Defense Department or NASA that develops launch vehicles? That took a lot of talk. But not very much of that was part of a formal dialogue with Congress.

**Martin:** So you saw a serious change between ’94 and ’95 with the switch from Democrats to Republicans, at least on the authorizing committees. Was there much of a real change for you on the Appropriations Committees?

**Johns:** I think less so. You have Vic Fazio, a good guy.

**Gibbons:** Very helpful.

**Johns:** They were consistent. They knew how to play their game, and they played it as straight as they could. Only the shots out of left field from somewhere where a member might try to reach across and do something. We were all much more concerned about that than how frequently it may have happened.

**Gibbons:** We had some serious struggles with some of the members. For instance, in the case of global climate change, which we haven’t covered very much today, there was such antipathy on the part of the conservatives on the Hill that they began to really harass us, because they knew we were instigating this whole process in the NSTC. It came to the point that they would call and demand all of our e-mail messages and travel logs of when we spent time on global climate change—another on the automotive-efficiency studies. In other words, they tried to dig into the details of OSTP’s day-to-day work to see if they could ferret out some numbers about how much of our time and money were being spent on these worthless and probably nearly Communist-type activities.

**Morrisroe:** Did you comply with their requests?

**Gibbons:** You have to to the extent that—

**Morrisroe:** I mean, the White House didn’t intervene on executive privilege grounds with respect to your correspondence?
Gibbons: I don’t think we ever tried executive privilege on S & T issues. That was a use that has been widespread in this present administration, but Clinton very seldom used executive privilege.

Johns: It might have been used in a Presidential determination or something. We just didn’t have many of those. But we were harassed to the point of having to spend a lot of time pulling together records, like our telephone conversations, and packing them all up to the Hill. They were on fishing trips every day. How many hearings were there held on a couple of crazy things? They held hearings all over the place for something over in the White House. I think it either had to do with travel—

Johns: Travelgate was certainly one of them.

Gibbons: Their effort, it struck us, was to disrupt the executive, not to help Government move ahead on things. It was almost purely disruptive.

Johns: It’s important to recognize the overall environment, which was, on August 17th of ’93, a budget was passed which had PAYGO [pay-as-you-go] and set the course for the administration to balance the budget.

Gibbons: That’s right. That was a good move.

Johns: It carried. It had one single Republican vote. Though the Republicans frequently brag about bringing discipline to the administration, it was just the opposite. But that cost the Democrats the House. There’s just no doubt about it.

Martin: And [Marjorie Margolis-] Mezvinsky.

Gibbons: From Pennsylvania.

Johns: Right. So then the Democrats coming back did not have a great love for the White House, needless to say, since they’d taken their leadership away from them. It was a very cool period indeed for the Clinton administration as it related to the Congress. The Republicans had taken the Congress. They were absolutely cold to us, and the Democrats did not have much love in them after losing. That was a tough environment, and it affected everyone and everything.

Gibbons: Very little bipartisan activity or spirit.

Martin: Did you get any pushback from Democrats on the Hill at this point for blaming the White House for losing ’94?

Johns: Yes, I think so.

Gibbons: The healthcare debacle was one.
Martin: The BTU [British thermal unit] tax is frequently talked about as one of those issue areas for the Democrats. They took a tough hit on the House, and then it got pulled by the White House. Never went through the Senate.

Gibbons: We finally got three cents on the gasoline tax after all those efforts.

Johns: And of course the word I want for economics, elasticity of price, is such that if it doesn’t change by somewhere within 50 cents and a dollar, it has no effect in terms of what people do. If you look around, you can find a 50-cent differential between service stations in Charlottesville. And who goes to the cheapest one? Not until the bills were up to three bucks did people start noticing the cheapest one. So three cents is nothing. It’s one of the worst center-rail issues.

Gibbons: But we started out asking—I suggested a dollar. It finally got down to something like 20 cents, and finally even that finally got whittled down. As Lloyd Bentsen said, “It almost exhausted him, but they finally got to three cents.” We knew three cents was not going to do it. It’s just the perversity of the American public not to commit to a national need. That may be because it wasn’t that well explained. The Oval Office is the best bully pulpit in the U.S., but it’s seldom used properly. You get very discouraged that some of the best options we have, from almost every perspective, are the ones that are going to lose, because it’s easy to attack them and people take them out of context.

Johns: You may finally, publicly, be able to say, “Drive an SUV. Help fund the terrorists,” and maybe that will wake people up to recognizing that we’re buying our fuel from the people who are funding the terrorists.

Gibbons: If you watch most of the SUVs, in fact, most of them have big American flags on the back and “Support our troops.”

Walcott: On a related issue—

Johns: You haven’t detected any bias in our views, have you?

Gibbons: But he wants honest answers.

Johns: Unfortunately we know too much.

Walcott: About this time, various Cabinet members began attracting independent prosecutors, special counsels, and, we are told, change the atmosphere of the White House substantially. Did any of that come near your office?

Gibbons: I was asked several times: “What contacts have you had with officials from the Bank of Indonesia who visited the White House on such-and-such a date?” Or always probing around to see, even in our little shop, was there a little edge somewhere, a little crack somewhere, that they could then open up to something else? It never worked. I don’t see how they had any time to do anything other than these snooping things that they were doing at the White House.
Our problem, I guess, was that we weren’t tough enough in the Clinton administration to say, “Go peddle your papers.” There was never a time, except that first year we were in, that we had any real help from the Congress. I even was interviewed once by an investigator about exactly what did I know about two or three individuals from a bank in Indonesia.

Johns: They call that phishing, spelled “p-h” these days.

Morrisroe: Were there any in the Republican leadership or members of the relevant committees for your work that proved useful and supportive of the science and technology agenda?

Gibbons: Sure.

Morrisroe: Can you mention who some of those people would be?

Gibbons: Amo Houghton was one, Sherry Boehlert on the House side—to a degree, Vern Ehlers. On the Senate side, [Mark] Hatfield, Hatch, [Jay] Rockefeller, John—

Johns: You don’t mean Rockefeller. He’s a Democrat.

Gibbons: Sorry, John McCain, who was very helpful to me on several occasions about getting a name out of the holding box and in the Senate for confirmation. So yes, we had plenty—

Johns: Jake Garn.

Gibbons: Yes, but Jake had left, I think, by then. Didn’t he leave about the time Clinton was elected?

Johns: I can’t remember.

Gibbons: There were a number. But you can number them on two hands.

Johns: You also could identify them in two categories. One is, if it was in their district, then they were likely to be supportive and be an ally and help if it was in support of something being done there. The other category was what I would have to call statesmen—that is, a concern for the national interest rather than political partisanship or something else—damn near hard to find these days—[Charles] Hagel and a few of these other folks. It has turned the Democrats mean as well, just defensively, but not nearly as mean as these ideologues that are there, both sides of the Hill, but especially in the House.

Martin: You had mentioned earlier that you had very different experiences with Sensenbrenner versus Boehlert when they were chairs of the Science Committee.

Johns: Yes.

Martin: At the same time, people were under the supposition that Newt Gingrich was controlling the House from the top down and giving marching orders. So you have a clear
difference in terms of how you get treated by those two chairs. To me that suggests that either the top leadership of the Republican Party didn’t care that much about what you were doing, or Boehlert was really fighting for science and technology.

**Johns:** Boehlert was fighting for science and technology, and Sensenbrenner was one of Newt Gingrich’s closest lieutenants.

**Gibbons:** Yes, Boehlert was an ally.

**Johns:** So I don’t think that Newt was giving strategy to Sensenbrenner, because there was too little coherence for that to be the case.

**Morrisroe:** Too little strategy to be a strategy.

**Johns:** Something like that. I don’t think that was the case. But Sherry Boehlert, on the other hand, fought battles regularly against the ideologues and—

**Gibbons:** He was usually on the outside looking in with respect to the party caucus.

**Johns:** As far as the inside was concerned, he wasn’t even trusted as a Republican, mainly because he was so thoughtful.

**Gibbons:** Nor was Houghton.

**Walcott:** How much of this is just partisanship—Republicans out to get Clinton—and how much of this is the influence of a distrust of science? Certainly on an issue like global warming, some of that would be the case. We have seen something like that in the Bush administration. Was that evident among Republicans in Congress in those days, that they just weren’t comfortable with science?

**Gibbons:** It varies, I think, but many of them are reticent to speak about science because they don’t know enough. They know enough to know that they don’t know that, but if they’re illiterate, then they’re not going to speak out very loudly. Very few of those people are driven by an anti-science attitude; many of them are driven by ideologies that tail against acceptance of global climate change data. Because if you accept those data, they say that we have an ability now to measure globally what’s going on at a rather elegant level of detail and accurately project its implications for the future. Most of these folks, the conservatives, simply don’t understand the process of developing this body of knowledge and the ability to look ahead a bit. You hear it from the religious pulpits, as well as the bully pulpits. I can think of—is it Kansas? Who is the Senator from Kansas?

**Martin:** Brownback.

**Gibbons:** Sam Brownback.

**Johns:** He’s certainly an ideologue.
Gibbons: And another guy out in Missouri or Indiana—

Johns: [Roy] Blunt?

Gibbons: —who says that climate change is nothing but a bunch of people trying to raise more money to do their research, to do their thing.

Johns: And of course that invariably comes from a few scientists like [Siegfried] Fred Singer.

Gibbons: Oh yes, your own Fred Singer here from Charlottesville.

Johns: He gets money from Exxon Mobil and is someone who says that global warming ain’t real.

Gibbons: REDACTED TEXT

Johns: Very much so. I used him on advisor panels a few years back at OTA, and what happens is the same sort of thing as if you’re an avid smoker. You look around and you say, “Well, my dad didn’t die till he was 85, and he smoked till the day he died.” That gives you an excuse to keep smoking. What happens with the members, I think it’s less a fear of science than it is the folks in their district who are supporting their reelections come in and remind them that it’s only “a theory.”

Gibbons: It’s Senator [James] Inhofe I was trying to think of who is so flagrantly and consistently bad about this.

Johns: Oil industry guy.

Morrisroe: What significance should be attributed to the elimination of the OTA?

Johns: Don’t get mad. Get even.

Gibbons: We knew it was going to be very controversial, but in the early 80s we did an analysis at the request of a Republican Senator about the efficacy of proposed space-based intercepts of ballistic missiles. We prepared a brief paper on it, 20 or 30 pages, that essentially tore Reagan’s dream apart at least in terms of space-based ballistic-missile interceptions. It infuriated the White House. They tried to kill the report. I had to appoint a special committee of a couple of Nobel laureates and defense people to look at our work. They gave it the equivalent of a Good Housekeeping seal of approval. Our antagonists thought we were mucking around with something that was Reagan’s dream and, “Damn it, that’s what we’re going to do if it’s Reagan’s dream.” That’s why the proponents of Strategic Defense Initiatives (SDI) committed to put hardware in place in Alaska without ever testing it. We have missiles up in Alaska now. We’ve never tested them under remotely realistic conditions.

Johns: At least not against anything other than something blowing its horn for the missile to—
**Gibbons:** That says, “Here I am. Come and get me.”

**Walcott:** We don’t always hit those either.

**Johns:** We did the same thing with SDI, in the sense of, at that time, it was being argued that you could provide an umbrella of safety to the United States.

**Gibbons:** That was Reagan’s dream.

**Johns:** The idea that you could do this was absurd. When I say “absurd,” not only did we not know how to do it, but how to do it with 100 percent accuracy—

**Gibbons:** —was something we probably won’t ever know how to do. The trouble with a nuclear weapon, especially of a large warhead, you can get 15, and you miss one and you’ve still killed 15 million people. So it’s the idea that you advertise this as an umbrella. At the time we were asked to assess the SDI, we refused to do it, but we decided to propose a brief paper that pointed out that the difficulty of doing anything that would provide 100 percent protection was quite remote. So the OTA paper talked about the science of the problem, not the R & D of the problem. We were heartily to blame for that, because it then had to be argued that it was better to knock down the attackers, even if you missed one or two, instead of pretending that you would get them all.

We refused to do a full, formal report early on because we said that the administration had not yet been charged with doing this action, and so there was nothing for us to comment on. So after a year, I guess, OTA went to work on it and again showed that there was much R & D to be done and no development to be done, because we hadn’t done the R & D yet. SDI proponents wanted to fund the development, but what we were going to develop had not yet been invented. So we said, “Go ahead with research, but don’t do the other.” It resulted in a huge reduction in budget. It’s almost true today, except they went for development. They built something in Alaska. Its chance of working is so damn remote that you could leave it to chance. So that money, which should have been spent in research on the subject—

**Gibbons:** And on anti-terrorism methods.

**Johns:** —was spent building hardware that ain’t going to work, billions of dollars worth.

**Morrisroe:** So you think it was the residual opposition to this paper that was the genesis of the Republicans’ decision to eliminate OTA?

**Johns:** All of that.

**Gibbons:** Yes.
Morrisroe: Why didn’t—you’ve mentioned a number of fairly prominent Republicans—

Johns: They fought. Orrin Hatch fought. Amo Houghton fought to keep OTA going. But they lost, and we believe they lost by a vote by Harry Reid. I don’t have to point out to you that he’s now the majority leader for the Democrats.

[BREAK]

Morrisroe: All right, we’re into our final stretch. I’ll start by asking if there are significant subject areas, issues, that occupied significant amounts of your time that we have not yet covered. We tried to hit some of the major ones. Many of them appear to be somewhat early during your tenure. Are there issue areas, major programs or initiatives that, for those reading this in the future, it’s important to understand how they developed and your role in that?

Gibbons: I’ll give you one to start. I’ve had an abiding personal concern about the lack of reaching out in time and the way we think about governance and the future. Clinton described it as “crossing the bridge to the 21st century.” We capitalized on it because it’s a good image. What we have left out almost entirely, in terms of the national dialogue, are these long-term issues that move slowly enough that most people don’t take notice of them: population growth, climate change, loss of species diversity, to name a few.

The Earth, looked at from the right perspective, which is long term, is now losing species at a rate faster than the time when the asteroid hit us 85 million years ago. The population is growing at an astonishing rate, still nearly 80 million net more people every year. Yet we try to resist the offering of birth control to people around the world, as though somehow it is bad to practice birth control. The pro-natalists don’t want to think any farther than having babies. They don’t think about the enormous momentum of demographic change and demographic transitions. The age bulge is moving through U.S. society now, which is causing us untold problems on Social Security and Medicare and a lot of other things.

And yet we’re going through it very slowly compared to what most of these other countries are going through. Think of the impact of high population growth rates in underdeveloped countries, such as the Middle East, where populations are doubling every 21 years. It doesn’t take many 21-year intervals to get you into deep trouble. Consider many of the Mideast countries today: half of their population is under age 16. That’s fodder and feed for violence, for unhappiness, for destructive tendencies, which come from loss of hope.

We’re not paying attention to these longer term issues because we’re so swept up in the day-to-day survival for many people. We are blind to these most fundamental problems that are facing us. The people are beginning to pay some attention to it, but the loss of ocean species, as an example, we’re almost out of the more desirable fish. It’s going to take a massive amount of restructuring of governance of global commence to make it through the night, and we’re paying precious little attention to it.
Mr. Bush says we don’t bother with that sort of stuff because it will hurt our economy if we do something about it. He was unwilling to even talk about a tenth of a percent change in average GNP [gross national product] growth in order to save the globe from the effects of climate change. So we are using an awfully high discount rate. I think that’s an issue that any President worth his salt needs to address from the Oval Office, and it ought to be part of any political campaign.

**Johns:** With regard to the Clinton administration, I think what is important and unusual is that we had a strategy of what we wanted to do with the R & D establishment and what the nation needed to do with the R & D establishment in effecting the transition from the Cold War era to one of globalization and international competitiveness. I think you ought to get a hold of that OSTP piece because when you look, you will find it as extremely unusual for either an administration or an OSTP to set out on a strategy and go a long way toward carrying it out or doing what could be done in the time frame that was involved. I think the Clinton administration deserves some credit for having done that.

**Morrisroe:** We’ve highlighted some of the important issues that you handled and discussed them. Are there important ones that we’ve omitted? You mentioned climate change, perhaps the development of the Internet. Were these things that you spent a lot of time on?

**Johns:** Yes.

**Morrisroe:** Okay, why don’t we take those in turn then? Climate change.

**Gibbons:** We established, for the first time in the OSTP, an assistant director of environment. That included primarily climate change but also other things such as global fisheries. Working on those issues consumed, I would say, between a fourth and a third of our entire budget. We hopefully raised awareness levels but we had a Congress that was not terribly interested in hearing about these things. So we were frustrated in that sense. But we published several good reports, and we did what we could, but it lay fallow. It’s lying quite fallow now, of course.

It may be picked up later, but I think what’s happened is that our discussions with industry have helped CEOs like John Brown of British Petroleum—or “Beyond Petroleum,” as he calls it—and others have picked up the cudgels in that they have looked at the numbers and have decided there’s a likelihood that the observations are right; and if that’s the case, industry needs to be thinking about it seriously. The most recent announcement from the energy companies are the same way, saying we’ve got to do something about changing the way we produce goods and services. Once you make that commitment, you’ve got decades before you can really achieve that much about it. It takes that much time to steer the ship of state in a new direction.

**Johns:** And huge economic opportunity on the way.

**Gibbons:** Enormous opportunities on the way and also some displacements. But it’s sad that the private sector and Europe are having to carry the load on this when our Government wants to sit on its hands. Our people are not that concerned. Why? Because they’re so covered up with the day-to-day things, they don’t seem to want to be worried about tomorrow.
Morrisroe: Within the administration, who was most involved on the climate change issue?

Gibbons: OSTP and Al Gore.

Johns: Bob Watson.

Gibbons: Bobby Watson was in that same part of OSTP. Bobby Watson was, Bierbaum and others.

Morrisroe: Either on climate change or the other environmental issues that that division of OSTP created under the Clinton administration, did you have occasion to work with any frequency with Kathleen McGinty?

Gibbons: Katie, yes.

Morrisroe: And the newly created CEQ [Council on Environmental Quality]?

Gibbons: We did. Katie, in fact, had been Al Gore’s environmental person when he was Senator. It used to really frustrate me when every time I tried to talk with the Vice President on one of those issues, he said, “Have you talked to Katie about this yet?” I would have to say, “Yes, I’ve talked to Katie about this.” Katie is a very assertive and capable person. Her orientation was more as political activism, and ours was more analytical work trying to build a more substantive basis of information about the extent of this stuff and what it means.

But yes, this is another shortcoming in the White House, the seeming inability to organize around an issue such as climate change, with the right people in charge rather than those people who had the most chutzpah to say, “I’m in charge,” like who was the General? Al Haig, who came down when Reagan was shot and said, “I’m in charge here.” That was part of the problem. In U.S./China relations, for example, there was a struggle between the National Security Council, the National Environmental Council, and ourselves and others. Climate change was poorly handled within the White House, as was arms control.

Morrisroe: How was climate change poorly handled?

Johns: It was more sloganeering.

Gibbons: A lot of sloganeering. Gore, bless his heart, did his very best to have things go right, but there was a big struggle. We ultimately worked pretty closely. We were the analytical side of what Katie was trying to do politically.

That worked out in another case, in terms of division of labor. When we did the PNGV, our aim was a vastly more efficient automobile that could be produced and sold—a ten-year effort, probably, or more. The Economic Council was interested, and we suggested they take on the job of fuel pricing and of the regulation of automotive efficiency, a complementary activity to ours. They tried to do it, but it went nowhere. We hope our efforts went somewhere. But it was a
struggle to retain a piece of the action in things that were deemed to be important to the President and the Vice President.

The struggle on nuclear weapons testing, which I managed with Hazel O’Leary too, I don’t think it was outgunning—it was outsmarting maybe—the Secretary of State and several other people about whether or not we should continue underground testing. There were legitimate reservations, including that of the Vice President, “We should continue underground testing, because if we don’t do that then the conservatives will prevent us from doing anything on arms control.”

Hazel and I won out on that issue because we got the Chairman of the Joint Chiefs to basically be on our side and put the ball into Hazel O’Leary’s lap. He basically said, “Hazel, you’re the one who has to write the warranty on the weapons you send over to DoD. If you’re willing to sign the warranty on these things, I don’t care what you’re doing, as long as you sign that warranty for me.”

**Johns:** This is to make the pits last long enough so that they didn’t have to be refurbished every 10 to 20 years.

**Gibbons:** So the settlement of that was this so-called stockpile-stewardship program, in which we said, “You don’t have to test the nuclear components. Let’s just make sure they’re staying in good shape.” So that was a—how did I get onto that?

**Johns:** Sliding into third.

**Gibbons:** That was part of the successes and failures of trying to get these things done.

**Johns:** She asked you to defend the arms control, because you said it was weak. I disagree a bit in the sense of the nonproliferation side. Important efforts were made internationally, including, as I said earlier, carrots and sticks to try and keep this subversive trade between Russia, notably, and Iran. Obviously Iran doesn’t have the weapons, so there was some success there, less so with Pakistan and their relationships with North Korea. But the pressures that were taking place, the administration was very sensitive to it, worked hard on it. The relationship we had with Russia in space was an important contributor.

**Gibbons:** And the interceptions of nuclear materials at national borders, we were quite successful. In the interception (part luck) of the Muslim extremists’ attempts to blow up some planes in the Pacific coming out of the Philippines. Those were all things that were happening during the administration that, by the grace of God and some good luck, reflect the fact that we were working hard on the rising terrorism threat. And the fact, although I haven’t had this confirmed directly from Sandy [Samuel], but Sandy Berger’s first comment to the new National Security Advisor coming in was, “First on your plate has got to be terrorism.” She ignored him, apparently.

**Morrisroe:** You mentioned you were a member of the National Security Council. How frequently did you attend those meetings?
Gibbons: A few times a year, not every month or whatever it met.

Morrisroe: Would your reasons for attending them be because they were considering an issue that was of special importance to science and technology or just as a periodic participation?

Gibbons: Usually because they were particularly important because there was some technology or science part of the discussions. Other times they were very selective in how well they informed me that the meetings were being called.

Johns: That was carrying a long tradition forward, I might add.

Gibbons: The OSTP has always been the “bastard at the family reunion” in the White House. It remains that way.

Morrisroe: Given that much of the science and technology agenda for the administration, perhaps necessarily, was going to be a transition, or an equalization, I might say, between defense and civilian spending on R & D, obviously the Defense Department is potentially the biggest loser in such a proposition. You might expect that they would have the most opposition to these shifts and changes. Can you talk a little bit about your relationship with, first, [Les] Aspin and discussions with the Defense Department about how you might make that transition? Then, when you have Perry take over, you have somebody who, I believe, was an Assistant Secretary who did research and science in procurement aspects of it.

Johns: No, not procurement. Perry was a venture capitalist and on the staff at Stanford University, and his Ph.D. was in—

Gibbons: Mathematics.

Morrisroe: Right, but I’m saying before he became Secretary, he was an assistant dealing with procurement and research, I thought.

Johns: No, I don’t think so.

Gibbons: That was an earlier administration.

Morrisroe: I didn’t mean immediately proceeding.

Johns: We used him a number of times in OTA while he was at Stanford.

Gibbons: I think that was during Carter, because Perry put in place the low-radar-profile aircraft. The so-called stealth technologies were introduced by Perry during the Carter administration.

Morrisroe: Can you compare Aspin and Perry in terms of your experiences with them?

Gibbons: Well, Aspin was a hail fellow, good-politician type, and Perry was a scholar—
Johns: Very in-depth guy.

Gibbons: Very in-depth, very knowledgeable.

Johns: Very thoughtful. We had lunch with him in his office once a month because he didn’t want to lose touch with what was going on. That’s a hell of a good relationship for the Secretary of Defense to do that. They were always delightful. Yet we talked about things that we mutually cared about.

Gibbons: They treat you well up there in the Secretary’s office for lunch—not as well as here perhaps. But Perry was that committed to the success of OST’s activities, which we appreciated.

We had a struggle later on with people like John Deutch and the idea of the so-called quadrennial review of defense strategies. They came up with this business of, “We’ve got to assume that there are two simultaneously erupting major conflicts on the opposite side of the world, and we’ve got to handle both of them by ourselves.”

Johns: Plus some smaller ones.

Gibbons: And they disallowed any consideration of other countries helping us out. It was going to be the U.S. unilateral thing; therefore, what does our defense budget need to be? Well, I took considerable issue to that. They did the same thing again this last time, the one earlier this year. You set up a straw man, and you can do what you want with it.

Morrisroe: Do you have a say beyond that first transition period in the appointment of the science/technology research appointments in Defense or any of the other agencies?

Gibbons: I responded to inquiries or invitations from the appropriate Assistant Secretary for candidates to run, for instance, the Defense Advanced Research Projects Agency and other science-level jobs in the Defense Department.

Morrisroe: Was it as a matter of course that you would be requested to give your input?

Gibbons: No, it depended on their interest to make that inquiry.

Morrisroe: So you weren’t interested in particularly intervening in the absence of a request from them in appointments on that issue?

Gibbons: I never had time to do it, I don’t think. We may have done it informally.

Johns: Besides, I think we had more comfort with the Cabinet Secretaries—

Gibbons: Yes, the way they went about it.
Johns: —and their deputies and what have you. We weren’t after political people; we were after good people, and we had confidence that that would be what they were looking at. I guess, in some cases, we had an opportunity to raise questions about some folks, but it was, “Have you considered so-and-so?” when they were proposing who they were thinking about. But it was much more collegial.

Gibbons: The White House personnel office would sometimes simply call over to our shop and say, “Look, we’re looking at the following names for this particular Assistant Secretary job. Do you have any comments on this, or any recommendations?” Usually we tried to go through the White House personnel office.

Johns: Or for Al Gore, his office—

Gibbons: Or for Al Gore, yes.

Johns: To say, “We’re considering, would you have anybody you think we ought to look at?” that kind of thing.

Martin: Late in the Clinton administration, it seemed as though Clinton shifted strategy to do some more symbolic things: for example, National Conversation on Race and those sorts of—a little bit of energy on that. Was there any effort, I guess, up until before you left, to at least seize some of the bully pulpit to push some of these long-term issues that you were talking about that they didn’t have any help on in that Republican Congress—but on things like climate change or exhausting of the fisheries or those sorts of things?

Gibbons: We did some things within the White House, like Gore’s breakfasts with Carl Sagan or others. We set all those things up. On another occasion we helped folks in Clinton’s shop. I think of Christine Varney, was it? Anyhow, we helped them set up an occasion in the East Wing, an evening in which the Gores and the Clintons joined Stephen Hawking on the stage. The room was filled with people, and Hawking gave the most incredible talk that he had already put onto his computer. Then there were Q and A’s from Gore and from Mrs. Clinton and from President Clinton. It was, to me, one of the most inspiring evenings there in the East Room.

Sadly, even C-SPAN [Cable-Satellite Public Affairs Network] didn’t come and cover it. I don’t think it was meant to be a closed session, but the nation never heard about it. But we tried. I think Clinton was inspired by it, but we were hoping that a larger audience would hear it. But he was trying to set the stage for crossing the bridge to the 21st century and getting a sense of where we were going and what we were going to need to be facing. I wish we’d done more of it. That’s such an incredibly important job for the President. That bully pulpit has no equal, and it’s not used. I think Mr. Roosevelt was the best prior user.

Johns: I was gone, but Clinton had burned some bridges with regard to his public credibility at that time, because of Lewinsky.

Gibbons: Lewinsky wasn’t quite out, because I think that the Lewinsky scandal came out in the spring of ’98, about the time I left. I was not involved. But when did you leave?
**Johns:** I left just before the election. I was after a sailing window, to be after the hurricanes and—

**Gibbons:** Oh yes, I remember that now. I knew it was a higher goal there.

**Johns:** —to get down there before the North Atlantic storms began.

**Gibbons:** A lot of the people in the publicity business are not turned on by what, I think, are these revolutionary, global issues. I would dare say that the White House Communications Office didn’t give a rat’s pajama about that meeting or the presence of Hawking in the White House.

**Johns:** Neither does the public.

**Gibbons:** If Dolly Parton had been there, it would have been a different matter.

**Boyles:** You said the public is very unaware about climate change issues. Was there anything else your office tried to do to raise awareness, and was the media or any interest groups helpful?

**Gibbons:** Have you seen *An Inconvenient Truth*?

**Boyles:** Not yet.

**Gibbons:** All the slides he used, including the one with CO₂ [carbon dioxide] going up in the air, we prepared those slides. In fact I used to stand up on a chair and hold that thing up with the CO₂ concentration rising to the ceiling. Gore was very generous with his time to talk about these things. I spent a lot of time talking, and so did Bob Watson and Rosina Bierbaum. Watson later went on to run the IPCC, [Intergovernmental Panel on Climate Change]. So our office was directly involved in the international studies of the climate change theories, practices, observations, what have you that focus was dropped after Clinton went out of office.

**Johns:** There was also a time line when the scientific community was still arguing with itself about the validity of projected impacts of climate change. So I think it wasn’t ripe, in a sense, to go to the public, because you would have raised just as much question as you thought you were bringing an answer. You would have had to raise the uncertainty if you were talking about it and talk much more cautiously about how the nation should move in case it was the case. Today it’s different.

**Martin:** Was your office involved in efforts on this issue, or any of the others we’ve talked about, to influence the content of the President’s speeches or the Vice President’s speeches? Did you work through the office of communication or otherwise to get to the speechwriters?

**Gibbons:** We got a few licks in. It was always a hit and miss because they were always changing it up to the last minute. We tried to get our digs in through the Vice President’s office but also
directly with a couple of the key speechwriters. I never tried to go to Clinton and say, “You’ve got to put this in your speech,” because that was not appropriate.

**Johns:** You have the Cabinet officers pushing their favorite exercise. Sometimes we would help a little bit in that regard, maybe bring Gore on board. But all of us—I spoke out three times a week and Jack more frequently.

**Gibbons:** Yes, I did a lot.

**Johns:** So all of us were out on the road.

**Morrisroe:** Given Gore’s level of involvement in your operation, given the issue area, you’re in a somewhat unique position, for those who worked in the Executive Office of the President, to talk about your observations of him as manager and as a leader. What was your assessment, strengths and weaknesses, of Gore as a leader in this issue area or as a manager of his staff?

**Gibbons:** Gore is extremely bright and knowledgeable. He doesn’t like to go into an issue without really coming to grips with it. I remember one time he was writing a speech to give at Harvard, and he kept some of my people up all night trying to work on some parts of that speech. He was intensely interested in getting it right and getting a message out.

He was very interested in the breakfast dialogues we arranged for him. They helped him broaden his knowledge base of the issues he was interested in, which were manifold and ranged strongly in the area of environment and climate change, but on the other hand, also on international affairs. His principal secretary told me once that she had to look in his eyes and watch him carefully for the first minute or two when he came in in the morning, then she would know whether to hide from him or to be prepared for a joke. His mood is highly variable.

He’s a very personal person. I once talked with one of Gore’s most trusted in-house advisors, and I said, “You know, sometimes I really can’t tell whether Gore likes me or not. I just can’t tell.” I knew that Gore had an enormous affection and respect for this person I was talking with. He turned to me and said, “You know what? I feel the same way.” So Gore is a person who, on the outside, every now and then you can see through his shutters, see this most delightful character inside. Other times he’s nothing but a cloud, and you just don’t know what he’s inclined to do.

He runs a pretty good shop. I’m not sure how effective his choice of advisors—other than me, of course—are or were. A couple of them, I think, have been disasters. His advisors in the political world and his, not only outside political world but also inside politics, I have often really scratched my head about it. He asked me from time to time when I was there, “What do you think of this person or that person?” Sometimes I was absolutely dumbfounded that he would think about such a person as coming into the White House staff. So he’s an enigma.

I often felt that if you could take Gore and Clinton and roll them in a barrel and have them rub off on each other a little bit, we’d all be better off on account of it. Gore would gain humanity, more consistent humor and outlook. Clinton would gain some reserve, be a little less of the charismatic preacher, and that would help. There was no barrel to be found.
What else about Gore? Wonderful extemporaneous speaker. I told him, and also the President, that whenever they spoke from their heart, it was absolutely profound and telling. But whenever they spoke from notes or a speech written for them, it wasn’t nearly as good.

**Johns:** I probably had breakfast with him 50 times, or more. He’s very self-deprecating, had a wonderful sense of humor, laughed easily, and was charming one-on-one, in a very personal setting of people that he knew and trusted.

**Gibbons:** Small group.

**Johns:** However, what he tended to talk about was, in a sense, troubleshooting on a micro level. It was, as far as the week-to-week meetings—

**Gibbons:** How do we handle the V-chip? For instance.

**Johns:** Yes. So there was very little strategy and was mostly operational, mostly troubleshooting operational problems. With regard to people, as when he was running for President—and I really have an affection for the guy and admire him—but I was reminded by the spotty people selection that his largest staff was his Congressional staff.

**Gibbons:** Yes.

**Johns:** So this working to a P & L [profit and loss] statement or having responsibility for supervision of a number of people with diverse backgrounds and levels of competence, he didn’t have any of that. It didn’t give him a lot of experience in choosing who his staff was going to be. So with the exception of Jack—and that’s still a little mysterious to me—it would be an area that I would worry about should he decide to become President. He needs someone who is going to be very important in helping staff out a White House under Gore.

**Gibbons:** Of course he’s been out of office for six years and, I dare say, grown quite a bit in the process.

**Johns:** That’s quite true. And he has been increasingly successful in his activities. That P & L notion, I think, is still not there. Of course, with his background, you can’t serve on corporate boards and see up close how one runs a large executive organization.

**Walcott:** Did you see any growth in that regard during the time he was Vice President as you observed him?

**Johns:** The kinds of opportunities you have there don’t enhance that growth. At least that’s my view. Jack may differ.

**Gibbons:** It’s a job like no other job, so it’s hard to—
**Johns:** It is, but it isn’t like running 13 divisions headed by Cabinet officers, each with their own P & L, so to speak. But at the same time, a significant maturity has taken place.

**Gibbons:** He’s an extraordinary person.

**Johns:** He is. He used to drive people like me nuts, who really had such an affection for him, to see him wooden-like when he’s talking.

**Gibbons:** When you know how hilarious he can be.

**Johns:** You started to see a little bit—see that movie *An Inconvenient Truth* and you’ll start to see the sparkling Al Gore, self-deprecating sense of humor. He’s a great guy.

**Morrisroe:** What were your observations of his relationship with the President?

**Gibbons:** Until the Lewinsky thing came out and the President betrayed him, in a sense, it was very close and personal. They had lunch every week, just the two of them.

**Johns:** We put things on the agenda there. It was important.

**Morrisroe:** So if you had something that you wanted brought to the President’s attention, his Thursday meeting with the President was an avenue?

**Gibbons:** He was an excellent conduit for that. That continued unabated from the time they went into office. And Clinton always wanted him around too. He said, “I may not be here. I could be gone tomorrow.” Most of the time that I was in the Oval Office with the President, other than ceremonial occasions, he would always want Al to sit with him. There were two chairs at the end of this sort of living room within the Oval Office, with a couch here and a couch there and his desk back there. Two chairs. When a potentate came, one would be for Clinton, one would be the potentate. But when it was an internal meeting, Gore was in one seat, and Clinton was in the other.

**Johns:** They considered it a partnership, but there was no doubt about who was the junior partner.

**Martin:** Were you widely considered within the White House as Gore’s staffer, or Gore brought you in and so you’re always connected to him?

**Gibbons:** I think there was a little bit of that, but it didn’t really work out that way. I did feel, though, that if I could solve something by working it out with Gore, I should not try to bother the President with it. So there were not that many occasions every year that I went straight to the President, because I was, after all, appointed by him. Even when I did that, I would do a copy to the Vice President.

**Morrisroe:** Were those circumstances when you disagreed with Gore, or were you unable to persuade Gore, or just because of the salience of the particular issue?
**Gibbons:** I think the salience of the issue, and also it was never that I had disagreed with Gore and therefore came to the President. It was that I felt I should keep Gore well informed. I shouldn’t have to depend on the President to keep Gore informed about what I was doing, because I knew Clinton strongly depended on Gore, in an umbrella sense, for all the science and technology activities in the Government, as well as foreign affairs and other things.

**Johns:** And that was widely recognized.

**Morrisroe:** Did you attend senior staff meetings?

**Gibbons:** Yes.

**Morrisroe:** On a daily basis?

**Gibbons:** Yes, 7:15 every morning.

**Morrisroe:** Having a relatively long tenure for a Clinton White House appointee, you can speak to the varying management styles of the White House overall under the different Chiefs of Staff. What were your assessments of management of the White House operation under the various Chiefs of Staff during your tenure?

**Gibbons:** Well, Mack was always laid back. He was such a long-term, close personal friend of the President’s from childhood. So he had a different style. He’s easy to get along with. He didn’t get into a lot of details. He was there as the President’s counselor, as well as—

**Johns:** And protector.

**Gibbons:** Bruce Lindsey, much the same way. Erskine Bowles, dear Erskine, he was very efficient. He was a good executive. At one point, he said, “You have the best run office in the White House.” I don’t know whether he was bragging or complaining. He’s a lovable guy, and he should have become Senator. But anyhow, Erskine was down to earth, efficient, used his time well, and I thought was the model of a Chief of Staff.

**Johns:** And smart.

**Gibbons:** And smart as hell. Leon was the consummate politician. He knew the territory on the Hill. He knew how complicated things were, and I thought during those turbulent times, he did a masterful job of keeping that place intact. It took Howard Baker to do it under Reagan, and Leon under Clinton.

**Johns:** There’s something else about being a politician, a word that’s not often used with them, you could trust Leon.

**Gibbons:** Yes, a lot of integrity.
Johns: He was a good politician, but he was a statesman, and you could trust him. If he was going to screw you, he would let you know. That is a virtue. If he opposed something, he didn’t let it slide and then kill it later with the President.

Gibbons: He was a perfect choice, for instance, for that commission on Iraq.

Johns: I thought he was a good Chief of Staff too.

Johns: John Podesta was a very sharp guy.

Gibbons: A very good guy.

Johns: I only knew him when he was the President’s secretary, that’s writ large. But he was very good, very sensitive to what was important and what wasn’t. That’s an important thing to bring to that job. Also a smart guy. Took his own counsel.

Martin: You had said also, thinking about people that you would have observed over time, one of you said that you thought Hillary [REDACTED], I guess, over time. Any other comments about her through this period of time? She, at least from the public face, after the healthcare fiasco, she started baking cookies and doing other things that took her off the front page.

Gibbons: She removed herself from the front page.

Martin: How about in the White House?

Gibbons: Same way. I saw her very seldom in the White House except on formal occasions.

Johns: But probably no less a counselor.

Gibbons: Oh, you bet.

Johns: You just didn’t see it.

Morrisroe: I have a question about your relationship with the various Chiefs of Staff. It might be typical for someone who had your position to have their chain of reporting or authority be through the Chief of Staff, and when they felt necessary, perhaps directly to the President. Given the special relationship that you had with the Vice President, and given his management of most
of the issues for the President in which you were involved, were you, on any regular basis, reporting to the Chief of Staff or going through the Chief of Staff?

**Gibbons:** Any memo to the President goes through the Chief of Staff. I chose to use a weekly memo to the President, which went through, I guess, the Chief of Staff and then the President’s secretary, who will frequently put a little summary note on it: “Gibbons says the following.” And then it would go on in to the President.

To me, the amazing thing was that regardless of how busy the President was, within about two or three days, I’d get back an annotated copy of my notes to him. He checked off this or said, “Try that,” or “Do this.” So we had easy communication back and forth without his having to take out time—he fitted it in where he needed to. But he always got it back to me very quickly. The chain of command is such that the President’s secretary, as well as the Chief of Staff, pretty much stay knowledgeable about the mail that is flowing in and out of the Oval Office.

With respect to Gore, it was much more informal, either an e-mail or sit-down visit with him or a memo telling him what I thought I needed or where I needed some help.

**Johns:** There’s one exception, I think, and that is, when something was going to hit the fan, you’d better be in Leon’s office before it was in the *Post.*

**Gibbons:** That’s right, beat the *Post* to Leon’s office.

**Johns:** Because something that could hurt the President, Leon needed to know about it as soon as you knew about it, if it was a big enough deal. If it was a big enough deal, you may well find yourself explaining it to the President.

**Gibbons:** I remember that. In fact I have a copy of that memo somewhere with me as an example. Bob Rubin and I sent a note to the President about something that was in the fire. The note across the top came not from the President but from Leon saying, “You two better get on this ASAP and get this damn thing solved.”

**Johns:** Right.

**Morrisroe:** How would you assess President Clinton’s strengths and weaknesses as a manager of staff, as a President, as a leader in your area of policy?

**Gibbons:** As a man of substance and introspection to what’s going on and what needs to happen and of intimate knowledge about how politics works, I can’t fault him at all. I think he was consistently incredible in that regard. In terms of his personal relations to people, absolutely engaging. His personality is splendid. Looks you straight in the eye, and he speaks with eloquence. As a sense of being a friend and comrade, very strong. You’d march right out of the trenches with him. As a man, in part because his life reflected that he spent basically every waking hour working on these issues, he was smart enough to move information so fast that you felt like he would use every piece of information you got to him that was of any value.
I remember one day giving him a long paragraph on an issue, and he had a speech coming up in about ten minutes. He glanced at this thing, and he stuck it in his pocket. When he gave his speech, there were the thoughts, woven into that speech. In other words, he didn’t reiterate it; he put it in his own Mixmaster, and it came back out in the right places in the talk he was giving. So he’s extremely adept at taking information and absorbing it and then fitting it in his framework and then redelivering it.

I won’t speak of his personal failings, because that was tragic, and it goes all the way back. If you read his book, you know that. And it’s a national tragedy. But other than that, I can’t fault him. I think he perhaps suffered unduly by the fact that he had escaped the draft. So had W, but W got away with it, and Clinton didn’t because Clinton went off to Canada and W went into a faux-Air Force deal.

In terms of his earlier life, it’s pretty clear that he went through some rebellious stages but came out on top. In terms of his ability to capture an audience, without notes, and have them standing in the aisles wildly cheering within a few minutes, it was always a miracle to me. I went to a number of different meetings, whether it be the press corps or some other group. I remember one meeting of the CEOs of all the major corporations. I forgot the name, the National Business Council or something like that.

Morrisroe: Roundtable?

Gibbons: The Business Roundtable. Big room full of all these people and their spouses. Clinton came in fairly late, gave a beautiful short talk, and everyone enjoyed it, applauded. Then, instead of leaving, he went around to every table and spent a couple of minutes at each table of eight just talking with these folks. By the time he left the room, they were all standing, cheering. So it’s that kind of sense of what the evangelist needs to do with his constituents. That’s inside him.

Gore couldn’t do that very well. On the other hand, I saw Gore have people cheering too. So it’s an attribute of a successful politician or a leader to raise people’s sights and awareness and interest in issues that go beyond themselves. Clinton was a master, is a master.

Johns: When you talk to him, there is nothing more important in the world going on with him than what you have to say.

Gibbons: That’s right.

Johns: And when he speaks, it is directed to you or to a couple of other people. It so captures you because he articulates it so well.

Gibbons: He’s so charismatic.

Johns: But in my view, he had no higher purpose than to make the country a better place—with particular concern about those who were hurting the most. That was in his soul.
**Gibbons:** I remember seeing him in receptions. There was one little handicapped child who came in with her parents. I saw him a little bit later on, kneeling down on one knee next to the chair this little child was in, talking with this little girl for two or three minutes. It was out of public view, but there he was. An extraordinary person.

I’ve said about all I can say about him except that I feel desperately sorry that he wasn’t able to rise above the Lewinsky temptation. But everyone has their frailty. The French just laughed when Americans responded to that thing, as you know. They said, “What the hell are you people doing responding to the incident in this way?” I don’t know. Our mores are wondrous to behold sometimes, especially when our evangelical preachers become unmasked. Who was the guy out in Denver most recently, just before the election?

**Walcott:** Reverend [Ted] Haggard.

**Johns:** What you’ve got to get clear in your mind, Jack, is that they only care about people from conception to birth. After that you’re on your own.

**Martin:** During this period that you’re in the Clinton White House, are there parts of science that you thought were important that lost out to politics?

**Gibbons:** Well, nearly the stem cell issue, because I got swept up in that shortly after Dolly, and they talked about cloning and the like. I was in Belgium at the time, and I had to do a telephone conversation with the White House about what the President should say about it, similar to the day they thought this meteorite they found in Antarctica was from Mars and that it had fossil forms of life in it. In that latter case, I simply sent the message back, “Let the President say, ‘This is very interesting. And now let’s let the process of science decide what it is before we start speculating.’” Another prominent political advisor had come in and tried to talk to the President to use this occasion to announce that he was going to send a manned mission to Mars. Those kinds of people are always hanging out there.

The other instance was the stem cell. I tried—we did this at OTA—to differentiate between somatic cells and germ cells, and the difference in manipulating these different kinds of cells, and the necessity to stay away from trying to create human embryos that would then be given birth, so we’re on to brave new world. But the terribly important point of protecting basic science and of the unfurling of knowledge about the processes of life, he did it very well. So he put a constraint on cloning for the sake of reproduction rather than cloning for the sake of understanding that process of conception. And it went through.

So what was the question? They wanted my advice; I gave it; he took it; and I think he did the right thing, and we’ve been getting in a mess ever since from other interpretations, like W’s. Does that answer your query?

**Martin:** I think so.
Gibbons: I’m reminded of the person who was asked a long question by someone in the audience and the speaker said, “Would you repeat your question?” The person in the audience says, “I’m sorry, I wasn’t listening.”

Morrisroe: The last question then, actually two questions, first about your departure. What precipitated your decision to leave the administration?

Gibbons: Two things, and I’ve done this in other jobs. I think there comes a time when, for the sake of the office you’re in, you need to understand that progress occurs both from continuity on the one hand and from the movement of people and ideas on the other. I went to the President, I guess six months before his reelection time, and I said, “I really feel like I’m going to need to be succeeded, because you need new ideas, new people. But I’d like to stay through the reelection and see how that transition works through in the succeeding months.” He agreed.

So I went back and figured out who ought to be my replacement. We set it up so that when the time came, which was actually about eight months after his reelection, that he was able to announce at the sesquicentennial of the American Association for the Advancement of Science, up in Philadelphia, that I was taking leave from Government, that Neal Lane was going to take my place, and that Rita Colwell was going to take Neal’s place. There was a standing ovation to Clinton for having this lovely, smooth transition take place, and it worked out like a charm. Neal did a beautiful job.

Johns: Good guy.

Gibbons: Out of that came a lot of things. One was the nanotechnology initiative, which I had been talking with Clinton about for a long time. Neal put together a study under PCAST auspices, chaired by Chuck Vest at MIT, and came out with an inspiring memo to the President, which says, “Here’s what we think you ought to do with this nano business.” That became a major new initiative that continues right to this day.

I left because I decided I was getting tired. It had nothing to do with Lewinsky, because I went to Clinton about this months before that news came out, before I even knew about it, but it was because I felt it was time to move on. Gore told me later that he thought at that point I was the longest surviving science advisor in the history of the President’s science advisors.

Martin: Skip, you left to time the hurricanes?

Johns: The reason I left was because I wanted to sail, not be sailed, to the Caribbean. There was a certain burnout feeling. We were in a little higher age group than most.

Gibbons: Those are tough jobs.

Johns: I also felt like it would not be a loss, because bringing in fresh blood—they brought in someone a little too academic, but what the hell. I made it to the Caribbean.

Gibbons: You made it through the storm—both storms.
Johns: Yes. I didn’t look back but was delighted. When you’re in the White House, there are certain things you can only get done by having them enunciated either by the President or the Vice President. For those who were there during that Lewinsky time, you can bet getting the time of either one of them was very difficult indeed. I’m sure Al was doing many things that the President would have otherwise—

Gibbons: Glad I was spared that. Neal Lane might be able to give you some insight. Have you talked to Neal?

Morrisroe: Not yet.

Gibbons: He holds a chair in the Baker School at Rice University. You’ll enjoy Neal Lane. I don’t think he’ll correct me too many times, but believe him when he does.

Morrisroe: What do you think will be the Clinton administration’s lasting legacy in the area of science and technology?

Gibbons: I think that’s hard to divine. I believe, drawing attention to the intimate connection, the inseparable ties between science, on the one hand, and higher education and economic progress is one. The hope for people is through expanding our knowledge base, and out of that, figuring out better ways to do the things we’ve been doing. He tied it directly to our economic future, our environmental future, our health future, our security. That was number one.

Number two, he gave added insight of the imperative to internationalize ourselves so that we were part of the world of nations. We are not emperors of the world. And that cooperation between public and private sectors, be it federal or state government and private sector, is absolutely essential—and that we needed to reestablish the connection between our higher education institutions and the private sector, as well to reconnect these things—do more “barn raising.”

I think his abiding concern—perhaps because Chelsea [Clinton] was still young—was that we need to keep thinking about not just our tomorrow but the tomorrows of our kids and our grandkids. That shifts your whole time constant of interest out much more distant and puts it, I think, at a more accurate and important perspective. I could go on and on. He’s leaving us with a lot for the historians to delve out of the nefarious corners of places like the OSTP. But we were doing it all because we knew that was what he was interested in. We never did a thing that we weren’t totally confident he was behind us on.

Morrisroe: Very good. Thank you both for being so generous with your time and bringing your recollections to the Clinton Presidential Project. That will be very valuable for those looking at this administration and this policy area in the future.

Gibbons: Please let us know if there’s anything more we can add to your plate.

Johns: And thank you for giving me a chance to spend a day with my old friend here.
**Gibbons:** Yes, I hadn’t seen Skip in a long time. That was fun.