Susan Burgess Burgess: Do you want to start out just by telling me how you happened to be in the government at the time that all of these issues were brewing?

Walt Hinchman: Sure. Let me go back. I don't know if you know when the domestic satellite policy debate started; it was in 1965, fall of '65, when ABC filed an application with the FCC to put up a domestic satellite system for broadcasting. I had just -- I got in, oh, I guess the fall of 1966. And how I got into it, I had been working for the Department of Commerce in Boulder, Colorado; it was, oh, originally I think it was called Central Radio Propagation Laboratory, I think at that time the name had changed to the Institute for Telecommunication Sciences and Astronomy, or something like that.

And I had been employed there from 1961 to 1966, and in 1966 I was chosen as one of the Commerce Science and Technology fellows; they had a program that just began a year before, I think. With, like -- there was a White House Fellows program, where people came into the White House, I think, from both industry and government, and spend a year as an intern.

And the Department of Commerce had decided to sort of pattern the program similar to that where they brought people in from their field operations, different parts of different agencies in the Department of Commerce to spend a year, actually an academic year, nine months, in Washington, where you -- it was a work study program, they had classes at the Brookings Institution, and also work in some fairly high-level offices, it was kind of interesting, to expose people in the Department of Commerce, you know, to a broader picture of the world, I guess.

And I had arrived there in September of '66, and went to my work assignment. My work assignment was with the Office of Telecommunications Management, which was part of the Office of Emergency Preparedness and part of the executive offices. And supposedly was, you know, the president's advisor at that time on telecommunications matters; I did very little advising the president at that point in time, it was kind of a low level office. But the one function it had was, under the Communications Satellite Act, which had been passed a few years before and created COMSAT and resulted in the creation of INTELSAT. One of the functions of that office was to advise the president on matters involving satellite communications.

And in response to a filing in 1965 by ABC to the FCC, the FCC had issued a Notice of Inquiry where they wanted comments from all parties, you know, done spring of '66, I guess, on the question of domestic satellites and should there be domestic satellites, and if so, who should be allowed to put them up.

I think what happened was I was sort of a free resource; I was there -- actually the person I was supposed to have worked for there resigned, left the office almost the same time I arrived, and so I was kind of floating around a bit, and they -- various parties had, in response to this FCC Notice, had filed applications. ABC had renewed its application, the Ford Foundation proposed a satellite system that was going to serve broadcasters and extract a subsidy to support educational television. COMSAT had filed an application stating that because it had been created to do the international satellite communications, that it should be the one to do domestic communications as well.

And I've forgotten whether AT&T actually filed an application, but they certainly filed comments, you know, and expressioned their views about

the need for or the feasibility of domestic satellite communications. So there were all these filings before the FCC, and I was told -- I was asked by the Office of Telecommunication Management to evaluate them all, to do an analysis of all of them. So that became my major work assignment during my time at OTM was to evaluate these.

And then of course in evaluating them, I contacted the best companies who had proposed them, including -- as well as NASA and the aerospace companies Hughes and TRW were all, you know, manufacturers of satellite, they collected a lot of information and all.

Eventually, during my time there, I wrote an evaluation, letter of evaluation to all these. I didn't really -- it wasn't my job to make any recommendations about, you know, who should be authorized to put up a satellite, but basically, to analyze characteristics and the technologies that they were using.

A lot of the questions that were raised by one party or another about whether or not satellites would interfere with terrestrial microwave systems, because that was one of the issues AT&T raised, was since they used the same frequencies that AT&T used with terrestrial microwave systems, that they would get interference. And so I did my evaluation.

Susan Burgess: Do you mind if I interrupt you for a second?

Walt Hinchman: Sure.

Susan Burgess: What is your background, are you an engineer?

Walt Hinchman: I'm a systems physicist, but I sort of got converted into what I describe as systems engineering or systems analysis earlier on in my career. I started

work after I graduated from Ohio State in 1955; I went to work for a Navy laboratory out in California and got involved with working on missile guidance and radar systems. And so my physics kind of got subordinated to what I call systems engineering; design of complete systems, I guess, would be the characteristic I would put to it.

Susan Burgess: So for OTM were you asked to look at the submissions with an eye to understand whether or not the arguments that these parties were making made sense or were logical?

Walt Hinchman: Right; I was asked to look at it primarily from a technical point of view, but also from -- in terms of the economics of satellite communications versus other types of communications. There were several technical arguments that were made by different parties. There were -- the satellite systems that were being used by IntelSat at that time for international satellite communications had essentially a single large antenna beam covering the globe, and so you can only use the frequency that was assigned one time. There were new technologies that were available that could use multiple spot beam antennas, but one of the questions was whether or not those were yet technically feasible. The aerospace people said they were; the AT&T said they weren't.

The other question, as I said -- one other technical question was whether there would be interference between satellites and terrestrial microwave systems. AT&T had a very large microwave network all over the country, which carried both video and telephone, you know, traffic, and they were arguing that satellites would interfere with that, and therefore would disrupt the communication network.

Then, of course, COMSAT, you know, had its argument about the technology. So yeah, that was my basic argument -- basic assignment was

to see the -- evaluate the technical arguments. But in addition to that, there were also questions, AT&T said that according to their analysis, satellites would not be economic for distances less than continental distances, so they could do it cheaper by microwave, they could add more capacity onto their microwave network cheaper than they could add a satellite system, and so that was one of the arguments and was one of the things I evaluated. Economic in terms of cost comparisons, not, you know, not the broader type of economic analysis.

Susan Burgess: Okay. Do you know when you -- do you remember when you completed this survey? I guess it might have been early 1966?

Walt Hinchman: No, it was early '67; I started it in the fall of '66, and I completed it, I think it was probably in January, February of '67. Gave that to, you know, just a -- this is just an internal paper that I did for the Office of Telecommunication Management. At that time, between the time that I started that work and the time I turned it in, they had gotten a replacement -- the fellow I was supposed to have worked for at the Office of Telecommunications Management was -- I think he was Deputy Director of the Office, and he's the one who resigned and left just as I arrived, and we went without that for several months. By the time I turned in my report, we had a new Deputy Director and it turned out he was a retired vice president engineer from AT&T.

Susan Burgess: So that changed everything?

Walt Hinchman: Well, from the time I turned in my paper which I said basically in my paper the technology is right for domestic satellites, that you could have domestic satellites, I did not see that the -- it was a serious interference problem between satellites and microwave radio, and so therefore -- and I

said, I think [unintelligible] that the Ford Foundation's proposal technically was the best; I found it featured the latest technology, multiple beams, satellites so you get more capacity out of it, and all. But I didn't have any comment about their plan to use satellites to subsidize educational television; that was beyond my, you know, budget, I just said that technically their proposal, I thought, was best, and that I did think that domestic satellites were feasible and all.

Over one weekend, from the time I turned in my paper, I got about a 30 page rebuttal from the new Deputy Director in the office, which I kind of suspected he hadn't been able to write by himself over the weekend, I don't know. So I thought maybe my pay grade had gone up to [unintelligible] something and thoroughly digested and dissected and, you know --

Susan Burgess: And what was his name?

Walt Hinchman: I'm sorry?

Susan Burgess: Do you recall the name of the new Deputy Director?

Walt Hinchman: Yeah, Paul Armstrong was his name. He's a very nice, old southern gentleman who had been with the Bell system all his life, a very gentlemanly fellow, we had a very good personal relationship and all. I don't think he personally knew that much about satellites, but, you know, he had already retired, it's a fairly new development and all. But anyway, he -- and subsequently, I think, the Office of Telecommunications Management put out some kind of a paper, it wasn't really my paper; I think there are bits and pieces of my paper were in it, in which they sort of bought the idea but, well, there was -- the possibility, some role for

satellite domestically, but there needed to be a lot of further research and experimentation and so forth and so on, and everything.

Susan Burgess: Well a couple questions. One, do you know if the 1965 ABC filing prompted the Rostow Report, or do you know if perhaps that was already under way when ABC submitted its filing?

Walt Hinchman: No, the ABC didn't -- I don't think ABC had anything to do with the Rostow -- with the Ross Dow Task Force, which was a year later. Domestic -- satellites weren't really a very major focus for that thing, report. I think it was probably more broadcasting and cable television were beginning to clash at that point, and the story I got about the creation of the Rostow Committee was that -- I don't know if you know, but Lyndon Johnson, they had broadcast interest, and there was this issue about whether cable, you know, should be allowed to carry broadcast signals and what the role of cable versus over-the-air broadcasting was.

And the story I heard was that he just simply didn't want to deal with that issue, and the, you know -- and hassle with -- I guess it was his wife, Lady Bird, who had the broadcast ownership. And so -- but this Rostow Committee was largely created to shove that issue out of the White House and get somebody to work on it. It turned out that the Rostow Committee had such a charter that we got into everything, some issues in the international communications deal that had been around for a number of years.

There were several AT&T providers through the international voice communications, telephone communications. There was RCA, and ITT, and Western Union International were international record carriers, carried data communications and TelEx telegrams types of communication. There was an ongoing -- had been for years -- there had

been earlier reports, earlier studies about should that industry be consolidated or what should be done with the international carrier industry. And I think that was another, you know, significant issue that was tossed to Rostow Task Force.

Susan Burgess: I just wanted to see if there was any connection there, maybe something going on in a different -- with a different committee that was similar to what you were working on. Okay. Going back to the report you made, I think, just to make sure I understand, I think you said that OTM ended up submitting something to the FCC that didn't look much like your recommendation, but it -- or, I'm sorry, like your evaluation, but it did essentially say that a satellite system could be possible, but further investigation was needed.

Walt Hinchman: Yeah. I don't know that -- I don't know whether they submitted it in any formal sense to the FCC. I remember seeing, after that time, a paper published by OTM to that effect, but I don't know whether they ever actually sent that over. I don't think it was ever raised to the level of any kind of presidential action or anything like that, you know. If it was, it's just a report that they published or something.

Susan Burgess: Okay.

Walt Hinchman: You see, I was coming -- by that time, by the time all of this was developing I was coming to the end of my time with OTM, ready to go back to Colorado, at the end of my fellowship here, and I did that, in probably, oh, June, I think it was probably June of '67. And I went back to Colorado and back to work at the laboratory there, and in, I'm trying to remember, it was early fall sometime, after the President announced, after Johnson announced the formation of this -- of the Rostow Task Force, I was -- or I got a call from the people at OTM where I worked, the main --

from the personnel guy there saying that they were anticipating -- that they were going to be -- see, this creation of this task force was announced at the -- it wasn't announced initially who was going to head up this task force, and OTM thought because they were in -- basically in the executive offices that General O'Connell, who was the director of OTM at the time, was going to head up this task force that Johnson had announced. So I got a call asking if I would be willing to come back and work there again as sort of staff on the task force. And I agreed to do that.

But I -- having spent a year in Washington just before that and found out that living costs were a lot higher there than they were in Colorado, I ended up during that year spending into my own savings and such, and I didn't want to come back there, you know, at the second grade level where I was, I wanted a promotion. They concluded they couldn't do that, but they would put me on as a consultant, a contract employee and all, and I said okay, I'd do that. So that's how I ended -- I went back then in that fall to OTM again.

Susan Burgess: And is that -- I'm sorry, which year is this?

Walt Hinchman: '67, fall of '67 went back to OTM as a consultant, with the expectation that I was going to be working on the Presidential Task Force, as one of the members on that task force. At the time I arrived, just like when I arrived before and the Deputy Director had just resigned, by the time I arrived, they found out they weren't going to head up the task force, that Rostow was going to head up the task force in the State Department. And so my first four months there I actually was working from totally different radio frequency maintenance projects and all, [unintelligible] it appeared I wasn't going to be involved in the task force work.

Then, interesting incident, my whole career is all happenstance; the fact that, yeah, the Task Force had gotten itself organized over in the State Department and they were starting to put out papers on mainly defining the work they were going to do, and of course OTM was one of the members of the Task Force, the Director of OTM was one of the members of the task force, and so OTM would have been providing input to the Task Force. And one of the papers they -- around was what they were planning to do about radio frequency management issues.

Of course, it didn't -- I had worked more in that in Colorado than actually on satellite or anything because the satellite -- we had gotten involved in the satellite issue, you know, the year before. And so I guess [unintelligible] they asked me at OTM to critique this paper from the Task Force, and I guess I sent back some rather caustic comments because it was clear that the person who had written that paper didn't know too much about how radio communication worked and all, and it was more of a critique saying, you know, you're not even raising the right questions, basically.

And I sent it back thinking I was sending it back up to my people I was working for at OTM, and they would digest it and send a letter of response they had as a result of that on over to the Task Force. Instead, they just forwarded my memo to the Task Force, which was not a very nice memo. And just a couple days later I got a call from the guy who had written the paper over there who was, you know, intrigued by, I guess, what I had to say, and wanted to get together, and we got together and talked about my understanding of how the radio communications worked.

And then he said, "Would you be interested in coming over and working on the task force?" And I said, "Well, that's actually what I'd come back there for in the first place." So I ended up then getting assigned over to

the Rostow Committee; that's how I ended up with the Rostow Committee as part of the central staff there.

And then we went, you know, we went -- got involved in all -- every issue in telecommunications, from the question of interconnection to the telephone network, interconnection with, you know, your own equipment, the new specialized carriers that the FCC had simply -- at that time they had only authorized MCI to get started.

The international satellite issues, the future of IntelSat, you know, all those issues, and I got involved at that point with all those things, initially from primary technical at least, all the technical issues; I was kind of the only person from the central staff of the task force with that technical background. There was, you know -- some of them were economists, several lawyers and all, but no one had, you know, the -- very much technical background. So I got drawn into all those issues where there was any kind of a technical issues -- technological issue.

At first out of that came looking at what the FCC was talking about doing and what this ongoing proceeding about domestic satellites. As I recall, COMSAT had made a proposal for a pilot program at that point to gather more information about the possible uses of domestic satellites and the problems that OTM and AT&T had raised about interference, and whether or not they were economical, and all like that. Comsat had proposed to the FCC that it put up a pilot program to get the answers to all that, and the Task Force, pretty much, as I recall, endorsed the concept -- the idea of a pilot program, not going in as a full-scale satellite system, but some kind of pilot program.

Susan Burgess: Right.

Walt Hinchman: And that, as you probably know, that Task Force came to an end and Johnson had decided not to run for reelection, and didn't want anything to do with the Task Force report. Rostow went over to the White House and, I know, pleaded, argued, whatever, to try to get the report released, and the report wasn't released. So there was a year's effort of an awful lot of people and all that I thought was basically a pretty good, you know, product, was just sitting there when the Nixon people came in, and there was a lot of pressure from the Hill to get it released. You know, the Democrats particularly in Congress knew the report had been completed and it was ready to be released, and I think they were putting pressure on the Nixon people to release the report. And they didn't know whether they wanted to, they certainly weren't going to endorse it, I think, but I don't think they wanted to release it. And I was working, at that point, I had been asked at the end of the Task Force, the Secretary of Commerce, who was a member of the task force, and I can't remember his name now, but he knew that I had been with Department of Commerce before, and he asked me if I would -- because I was ready to go back to Colorado, you know; I had gone back to my old job there. And he asked if I would come over and sort of be a transition person in Commerce. He knew who the new incoming, I guess, it was the Assistant Secretary for Science and Technology that would have been over in charge of that area of Commerce's interest, and he knew who that was going to be, and he wanted to know if I would come over and work through that, and I said yeah, I [unintelligible] to do that, that's fine. I went back to working at the Department of Commerce with the idea that I would then head back to Colorado and go back to work there.

Susan Burgess: Is that 1969?

Walt Hinchman: That would have been '69, yeah. Task Force ran through the end of '68 basically. But I was there in early '69, when the Nixon people came in, and I actually helped this new Assistant Secretary for Science and Technology after I briefed him on what [unintelligible] with the Task Force and had many discussions with him, we decided that he was to create an office of telecommunications because he thought telecommunications was important in Commerce and they had no real focal point in Washington, they had the sense to do that in Colorado, but it was doing mostly technical work, and he thought Commerce had a broader interest in telecommunications, and so we established an office of telecommunications there in Commerce. And I was kind of involved in setting up the charter for that and getting that thing going.

And during that time, I got a call from Tom Whitehead, a guy who had been in the Office of Management and Budget at that -- during the Rostow Committee -- we -- as you know, all these different departments were represented and periodic meetings with them. And this was the guy from OMB, and he had gotten to know me, and I guess Tom had [unintelligible] and then talked to him about -- I think it was more about whether this report should be released or not, you know, that issue and all. I think that was how Tom first got involved with it, was the -- he somehow got the assignment in the White House, whether or not that Rostow report was going to be released. Anyhow, this guy had told Tom about me and that I was there in town and was not a political type, and was just a technical kind of guy at the time.

And so I had a call from Tom wanting me to come over and brief him on what this report was all about, and what the issues were, and all, with telecommunications. So I went over, and in about an hour, hour and a half -- I don't know how much time you spent with Tom, but I don't know, Tom may have changed, but at the time, he kind of sat there and sort of

listened, he looked like he was sort of half asleep, and, you know, occasionally would ask a question about something I was telling him, but didn't seem all that excited about the whole subject, and it was very cordial. And I finished, and I went back to Commerce, and I thought, well, this -- [unintelligible] they're never going to do anything about telecommunications, the interest didn't really seem to be there.

And I was approaching the time when I was supposed to go back to Colorado anyway, so I continued on with that, and actually came back to Colorado and back to work at the laboratories out there, out here. And started up the new -- group was called Satellite Systems Inspection Engineering, and we were going to expand the work we had done previously on radio frequency management kind of issues, and at the same time start getting involved more with satellite communication issues, which -- and particularly with this issue of, you know, interference between satellite and microwave and things like that, and I was heading up this group that was going to do that.

And one day I was sitting in the staff meeting. I think it was about probably July, first of July or thereabouts, or June, and my secretary came in with her eyes all wide and said, "You have a phone call," and I said, "Well, I'll take it -- I'll call them back when I finish my staff meeting," and she said, "It's the White House." And when you -- and so I said, "Oh, I'll take it then," and it was Tom, and he said the FCC -- I hadn't really been following what the FCC was doing, and he said the FCC was about to, you know, release a decision in this proceeding now.

This was in '69, so it had been going on for three years already, and they were going to propose a pilot program, but it wouldn't -- it would be just -- the COMSAT pilot program, it was going to be sort of an all-industry pilot, and the FCC was going to be a committee, you know, they were

going to have a committee, and all -- and he said he thought that the Nixon administration would like to weigh in on this, and would I come back and work for them for a couple, three months to develop a position [unintelligible] . The three months turned into about six months, but I said, "Well, you know, I'm just starting this new organization out here," and I said something, "You better talk to the people at Commerce and see if, you know, they will release me."

And about five minutes later I got a call saying, go. So I spent that summer then shuffling back and forth from Colorado trying to keep the operation going in Colorado by meeting with my people on Saturday, but I would -- I'd fly back to D.C. on Monday, spend the week working with Tom on putting together this domestic satellite paper and fly back out Friday evening and would meet with my staff on Saturday to try to keep that operation alive, and that went on for several months

Susan Burgess: I'd like to back up for a second. When Tom and I talked about the Rostow report and when he came into the Administration, he said that it sort of by happenstance occurred that he became responsible for telecommunications issues. And he said that pretty early on, as you said, people on the Hill were asking about the Rostow Report; the Rostow Report, where is it, were they going to release it. And he said that his experience was that he couldn't even find the Rostow Report. According to him, Johnson had been so disinterested in releasing a report that it had gotten buried somehow, and he had to track down somebody in, I think, OMB, or BOB, the Bureau of the Budget, to -- who actually had the Rostow Report. Had you heard anything like that?

Walt Hinchman: Well I think that's absolutely correct, yeah. I think it -- I don't think it was there on Nixon's desk by any means, you know, when Johnson walked

out. I think -- I don't think Rostow was ever able to actually present to him the formal way to Johnson; I think he went over and talked to Johnson, told him the report -- and you understand I'm getting this second-hand, but Rostow came back and told his number one man, who was Alan Novak, Alan Novak, yeah Novak -- was the head of the central staff, and he was Rostow's right-hand man.

Alan was the one who really, obviously Rostow had many other things to do, you know, and so he called these meetings of the Rostow Committee periodically, and on little more frequent occasion he got involved with those of us who were actually working. But Alan Novak ran the central staff, which was about six or eight of us, I guess, and we're the ones who did the work, and he was the real leader of the whole effort. And so Rostow came back and told him, and then he passed onto the rest of us what had gone on, so I'm getting all this second hand.

But, you know, how I understood was that Rostow went over, demanded an audience with Johnson because he had already maybe sent something over and been told that it wasn't going to be released, and so he went over and demanded that it be released, and I guess Johnson said, no way. And so I don't think Johnson ever, you know, had anything to do with it, and probably Bob, or Tom got the thing -- probably was from OMB. I mean, I still have a copy of it myself, you know, I -- we all had copies, there were copies floating around, but I suspect that he -- that's where he got the copy. And that may be why, you know, I got the call. By God, it may have been when he found that copy he also found this fellow that knew me, and he said, well, if you want to, you know, find out any more about this, call up Walter over in Commerce.

Susan Burgess: Okay, so going back to where we were, you got a call, you're in Denver and you get a call from Tom saying the President wants to take a look at

this before the FCC takes any action, so you return to D.C., and what happens then?

Walt Hinchman: Well, Tom and I had some discussions first. There was another fellow he had brought in from the Department of Transportation, and this guy, this fellow that I knew from the Rostow days too, where this guy had not -- he wasn't on the Rostow group, but he had been sort of the second tier in the Department of Transportation, working with Rostow, you know, providing information primarily. His name was Dick Gabel. Tom, I don't know how he'd come across him, but Dick and I talked to Tom probably, initially, just, you know, sessions with him, giving him some of this background and all what had gone on.

And I remembered I had sort of, I suppose, bought into the idea when I was on the Rostow Committee about the pilot program. You know, I just felt that -- well I thought that the technology was there, and the technical problems weren't a problem and that satellites really could play, you know, a cost-effective role. That didn't seem to be the general consensus, and so in order to get something going, I guess I bought into the idea of a pilot program. And I think my first suggestion to Tom was, okay, let's talk about a pilot program to get the satellite, you know, get something happening, because nothing had happened up to that point. But, you know, [unintelligible] a committee-run pilot program, and I think I proposed to him having NASA do a pilot program, you know.

And there was another reason for that too; Tom had responsibility, I guess his primary responsibilities were NASA and, as I recall, Maritime, I think he had at the time. There were issues about the U.S. Maritime business and what the government should be doing there. I think those were probably more his interest and responsibility, initially, than the telecommunication. But I guess I thought that if we were going to make a

recommendation to the FCC, that we should say, okay, let's have a pilot program, but let's have NASA run it. And I remember Tom looking at me in one of those discussions and saying, "In a Nixon administration?"

And so that's when I said, okay, I guess that's not going to fly, you know. And then the question is, what could we recommend to the FCC and lots of discussions where I guess, you know, we decided to create an -- I thought he was somewhat instrumental in this -- I don't know, basically saying who should we get involved in trying to make this decision. Well having just finished a year with the Rostow Committee where you had an inner-agency type of activity, and people from different points of view and different backgrounds, you know, working together, but all government people, I proposed we have a [unintelligible] technical committee and an economic committee to look at those two separate, you know, issues, and bring in people from other agencies and that's basically what happened. We had a technical committee, had representation, I can remember, from NASA, you know. Then we could go to NASA through that person and say, "What is technically feasible in satellites?" You know, because NASA was, you know, totally in touch with all the aerospace industry and knew what could be done and all. And there was a guy from [unintelligible] Council of Economic Advisors who headed up the economic committee, which is just basically to say is there a role for satellites economically in the telecommunication business.

Susan Burgess: Walt, before we talk about the folks who were on the Committee, can I go back a little bit with you? When you returned to D.C. and were meeting with Tom, either alone or with Dick Gabel, could you tell me a little bit more about what your sense was about Tom's perspective of the situation; was he really pretty open-minded or had he come to some conclusions already? It sounds like one conclusion he had come to was that politically, it would probably not make sense for NASA to be a head of a

pilot program on this issue. Do you recall if he had made any other conclusions at that point?

Walt Hinchman: I don't really think so. I think he just, I guess, had some skepticism about what the FCC was about to do, and he definitely didn't have any preference for any of the, you know, the parties who had proposed the satellite systems or anything. He wasn't in favor, as I recall, of any particular system. And it was a pretty open, free-ranging debate that went on among us about what, you know -- what would make the most sense.

Susan Burgess: At that time, do you know if he -- or maybe Dick Gabel, because of his economics background, did they talk about competition versus monopoly or did they raise any of those issues about trying to diversify --

Walt Hinchman: I'm sure that, you know -- because I had been through all those issues with the Task Force, and I know we talked a lot about that, but I don't think it was -- other than the one comeuppance I got about, you know, this isn't going to be a government thing. You see, I'd been there throughout basically a Democratic administration with a Democratic Congress, and I guess the idea of government being, you know, much involved in those things was kind of inherent in all that, and Tom was -- that was the only thing he was adamant about, I think, was that there not be a government role in it. And everything else was pretty much open discussion; he was obviously pro-competition, but not specific in the sense of telecommunications; I don't think he had that much of a feeling, you know, at that point about telecommunications, per se.

Susan Burgess: All right. So you were --

Walt Hinchman: Other than, you know, to raise within all these different things about, you know, AT&T's arguments and things, what with that, and both on the

economics and the technical issues, because I had been through them -- at that time I'd been through those same arguments about three or four times.

Susan Burgess: Right. I have a letter from 1969 that lists a group of folks on the, what at this time was called the White House Working Group, and I just wanted to go over them with you in case this brings to mind any stories or any information that you think is important about the meetings that you all had. It looks like there was a Dr. Russell Drew from OST.

Walt Hinchman: Uh-huh.

Susan Burgess: A Dr. Tom Moore from the Council of Economic Advisors.

Walt Hinchman: Yeah, he was the one who chaired the Economics Committee, and he did probably most of the work on that [unintelligible].

Susan Burgess: A William Morale from BOB.

Walt Hinchman: Yeah, he was -- he wasn't the guy that I was -- who had told Tom about me, he was his boss, Bill Morale. I'm thinking -- I can't remember the other guy's name, but Bill would have been the person on the working group, yeah.

Susan Burgess: Okay. And you don't recall the person he supervised, his name?

Walt Hinchman: I can -- that's one of the things -- I can pick through my memory's field and size.

Susan Burgess: Yeah, it might come back to you.

Walt Hinchman: It seems like it was Bob -- seems like it was Robert something, but I just can't bet on that. I knew both of them pretty well as a result of working on the Rostow Committee, but Bill was a little higher, and the only time -- I'd see him occasionally, and the other guy I saw more frequently. I think Tom said to me when he called me that the other guy had suggested he give me a call.

Susan Burgess: And there was a Colonel Ward Olsen from OTM?

Walt Hinchman: Yeah. And I don't know if he was a former AT&T employee or if he just happened to be very much sympathetic with AT&T, but he was sort of like the AT&T representation. The arguments in his papers and input was always along the same lines, you know, he was very -- he was very much opposed to all these [unintelligible] came out [unintelligible] with, and I think he wrote some memos to that effect.

Susan Burgess: Basically all the terrible things that would happen if anything were ever erected that would threaten AT&T.

Walt Hinchman: Yeah.

Susan Burgess: Yeah, okay. And then the FCC, I guess, was represented by Rosel Hyde or Bernie Strasberg?

Walt Hinchman: Yeah, and I think that was more of a courtesy to the FCC; they never really did anything. I think Rosel Hyde was the Chairman of the FCC, he probably came one time, you know, and that, when Tom was having sort of an organizational meeting, and probably gave a little background on the FCC's role, and I think Strasberg sort of did the same thing.

Might have come a couple times to meet with people that mostly they were providing input on what had transpired up to that point with the FCC. They were, obviously, a little sensitive about the White House getting involved in their business because, as you know, the FCC is considered an independent regulatory agency, and they didn't always like to have outside interference.

Susan Burgess: Now that actually raises a question, before I finish the list of people that were in this working group. There seems to be authority from the COMSAT Act that the executive had -- was given the authority in the Act to weigh in on satellite issues. And so I wonder if that was ever brought up in these meetings, that maybe this was one issue that the FCC really should stand still for the White House, at least to make an opinion on.

Walt Hinchman: I don't know that that was ever really discussed. It certainly was known by the FCC, you know, that that was part of the COMSAT Act, and that was sort of General O'Connell, you know, over at OTM had his authority. But it had never been used in any significant way. Because before that, before the domestic satellite issue came out, satellites were only, you know, international, and that had all been pretty much worked out with the State Department and the Facilitator [? Transcription error?], and so the executive other than the state department had never really, you know, had much of any role in that.

Susan Burgess: Okay, so the FCC thought that perhaps --

Walt Hinchman: I'm sure they knew that, you know, it's better to have some authority into the COMSAT Act that it just had -- it's just that it never had been exercised before; I don't think they were expecting it to be, you know, any directives coming in from the Feds or anything.

Susan Burgess: Okay. And then the other folks I have listed as attending the working groups were Justice Don Baker?

Walt Hinchman: Uh-huh. He was the Anti-Trust -- head of the Anti-Trust Division. And probably, if anybody weighed in on, you know, the benefits of competition, it would have been Don Baker, he was pretty articulate about that.

Susan Burgess: And at that time did he mention anything about a law suit against AT&T or --

Walt Hinchman: No. I don't think anything about the AT&T Anti-Trust case ever came up during that whole proceeding on domestic satellite.

Susan Burgess: Do you recall Don Baker being supportive of any particular applicants -- or not applicants, but any proposals for what the system should look like? Because I know you guys solicited industry responses concerning what the system should look like.

Walt Hinchman: No, I don't think Don would have gotten into that, I think he would have just been in favor, you know, whatever works for a competitive market, I think, would have been his view.

Susan Burgess: And then the last five people I have on my list are Willis Shapley from NASA.

Walt Hinchman: Uh-huh.

Susan Burgess: And yourself. Robert Sher [spelling?] from the Post Office.

Walt Hinchman: Boy, I don't even remember how much he was involved, I think, because I -- the others I can recall and remember, you know, talking to and dealing with in meetings, but I don't even remember a Post Office representative.

Susan Burgess: Richard Beam from the Department of Transportation.

Walt Hinchman: Yeah, he was, I believe he was Dick Gabel's boss, I think; I think he was next above Dick Gabel. And Dick only worked with us for awhile. Like I say, he and I were there initially, but as I recall, I don't know if he had other things that he had to attend to or something, but I don't think he stayed on, you know, actively there throughout the whole proceeding.

Susan Burgess: Okay, and so Dick Gabel was part of the DOT?

Walt Hinchman: Yeah, he was part of DOT.

Susan Burgess: Okay, let me see. There were -- I also have an agenda from a November meeting which looks like it's a final meeting conducted by -- or one of the final meetings conducted by the Committee, or the working group, and there are a number of people listed on here that weren't on the previous list, so I was wondering if I could go through them and if anybody stands out, you could tell me about them. David Atchison?

Walt Hinchman: David Atchison. I'm trying to think -- there was an Atchison with COMSAT, but he wouldn't have been on the committee, but I can't remember -- I guess he's not -- that's not ringing a bell. I mean, I don't know, Atchison, and I almost think it was David Atchison who was with COMSAT, but why would have been at a working group meeting unless he was there to represent something?

Susan Burgess: Let me see -- I think I have that he's the National Aeronautics and Space Council.

Walt Hinchman: Okay, maybe he was.

Susan Burgess: James Armstrong?

Walt Hinchman: No, that one doesn't ring a bell either.

Susan Burgess: Luscious Battle?

Walt Hinchman: Now, that is COMSAT, see? Battle was general counsel for COMSAT, so that must have been not an internal working group meeting, it must have been more an industry group meeting of some kind.

Susan Burgess: Yeah, this does include -- on these agendas for this particular week that I'm looking at, it includes presentations from AT&T, COMSAT, CBS --

Walt Hinchman: Okay, that's what they were doing, that's why they were making the presentations to the working group.

Susan Burgess: Okay, then I don't think we need to go through this since we've gone through the list of folks from the government. So from these meetings that the Task Force had, do you recall anything in particular that stood out, any conflicts?

Walt Hinchman: Not really. These -- you need to understand something; these groups were set up, these committees, there were very -- most of the work was done by me, by Tom Moore, who did actively work. I mean we did, you know, [unintelligible] things and circulate papers to these people and advanced these meetings, but most of the -- the meet -- and then there would be a

small amount of discussion at the meetings and there would be some, you know, changes to some things or some questions given to some people to go back to NASA and find out, you know, something, and pass it back, which we would then take and write up for the next meeting, but these were not long deliberative sessions, and most of the people didn't actively participate. There were very few active writers and all, putting these papers together.

Susan Burgess: Okay.

Walt Hinchman: Does that help?

Susan Burgess: Yeah, I think so. I'm trying to get a sense of what took place from the moment that this working group was assembled to the final product, which was a press release and a recommendation to the FCC. I'm trying to get a sense of how the final policy was shaped, and --

Walt Hinchman: Let me tell you. I'll cut to the chase here. I wrote most of it, circulated it back and forth, you know, to relatively few people, and primarily with Tom, you know, and editing and reediting and rewriting, and finally, you know, had a product that he was happy with. And somewhere along that process it just, in discussions primarily, I think, between us and with maybe Tom Moore, maybe occasionally, you know, somebody else involved, the idea of open skies, well, you know -- and basically I said, I have believed now for several years that technically it can be done, that it won't interfere, and also that those issues shouldn't be dominant, and of course Tom's philosophy and all was -- didn't -- why not let everybody do it. You know, and I don't know who coined the term or whoever came up with open entry, I think we call it open entry, and I think in the press it got called open skies. But it was just give and take largely among a very few people.

Now, I don't know -- I think you said earlier last week you were wondering, you know, who bought off on all this whole thing. I don't know what might have gone on, if anything went on, at the Peter Flannigan level, one level above Tom, because that's where it all ultimately came from. I don't think anything went on there -- I don't think, you know, Peter was actively involved in reaching any of these decisions, and I'm pretty sure that Tom wasn't, you know, we weren't trying -- and the policy seemed to be made a little different in those days, or at least on this issue. We listened to all the points of view that the industry people had, but when we came time to write up the recommendation, it was whatever, you know, three or four of us agreed seemed to make sense. And I think that's the way it got produced.

Susan Burgess: And speaking about taking into consideration the industry positions, do you recall being particularly impressed or unimpressed with any of the industry submissions that you received?

Walt Hinchman: Well, I was -- I guess I was naturally more impressed with the aerospace industry presentations because they seemed to really know, you know, what the technology could do and where it was going and trust -- they very much, you know, while we were talking about domestic commercial satellite communications, they were building all kinds of systems for the military and doing all these things -- of the despun platforms with antennas mounted on them, which the commercial people were saying all -- or AT&T, particularly, you know, were saying we don't know if these things work, and all. And we knew from talking to the -- both NASA -- but NASA was very -- NASA didn't want to get on one side or another, you know; they didn't want to offend anybody.

And so they would give us good responses to technical questions, but they weren't really trying to push anything. The industry was, the aerospace people were obviously trying to push the technology into a new and better capability, but they were doing it in all these defense programs and all anyway, and essentially, you know, wanted to apply that commercially. So I guess I was more impressed by them than I was by COMSAT or AT&T or the networks, you know, who wanted to be users; the networks weren't getting into the technology of things.

At least I was more impressed with the presentation I got because those tended to be hard, factual analyses of this is what we can do, and this is how the interference situation takes up between, you know, microwave and all, whereas the other tended to be more, you know, position papers, I guess I would call them.

Susan Burgess: Right. So do you recall particular organizations, particular aerospace companies that were involved?

Walt Hinchman: Well, the two that I dealt with through that whole time, most were Hughes Aircraft and TRW. Hughes had been the -- was going to be the supplier for the Ford Foundation system; that's how I first got in touch with him because the Ford Foundation plan had been seemingly -- to me, at least -- seemed to be the most advanced technologically and well thought out.

And so through that I got involved, met with some Hughes people and started getting information from them, and they were very active in the radio business too, about interference. They had some people working on radio interference issues, you know, prominently nationally known, I mean, you know, participating in national and international conferences and all, so I got the information from them. TRW -- I can't remember the

specific people so much there, but they were also I think one of the main suppliers or potential suppliers for the satellite -- for the people who wanted to put up satellite.

Susan Burgess: What about UCC, the University Computing Company; do you recall them?

Walt Hinchman: Boy, I don't. I remember the name, but I don't remember, you know, anything specific about that company.

Susan Burgess: There were a couple points that it seems like some of the industry folks were pressing for, but that ultimately the working group decided not to present in the Open Skies Policy, and that was some folks wanted a pilot program and some folks wanted to have somebody in charge of the satellite system, such as NASA or COMSAT or whatever. And in the final recommendation, it suggests that there's no need for a pilot program; people could just go ahead and set up the system. And also there was no need to dictate who should set up the system. In other words, there should be open entry, and COMSAT could compete if it wanted to.

Walt Hinchman: The reason for that was -- the reason for the first part was -- at least in my point of view, and I guess I was largely involved in pushing that point of view -- was that I thought the technology was there, you know, as early as 1965, '66, and here we are going into 1970, and the technology had only been progressing since then, and that there was really no need for a pilot program, I felt, and I think Tom became convinced that the technology was there, and you could -- if somebody wanted to use satellites for domestic purposes, they could do it.

And then the next question was, should there be any kind of restrictions on who should do it, and our decision there was these things cost a lot of

money, you know? They were, I don't know, $300 million or something like that [unintelligible], I seem to remember that in my memory, to get into a system, just to get the satellite up and the [unintelligible] stationed. And our basic view was, these are going to be big players who go in this. They're going to do their own analysis of whether it makes sense or doesn't make sense, because no fly-by-night people are going to get into the business. So why not just say anybody who's got that amount of money and are willing to put up the risk can do it. And that was it, and -- I think the one thing I would say to you; I think one of the most significant things about Domestic Policy, the Open Skies Policy, was that there was really no competition in the telecommunication business at that time.

Even though the FCC had authorized MCI to go into specialized carrier business, prior to line business, that was still very much up in the air; they hadn't really decided to, you know, the broad policy of open entry. They had only allowed one entrant into a limited part of the market, and it also wasn't clear whether or not they were going to survive because AT&T was at that point still refusing to interconnect with them to provide a lot of the things they wanted to do. So that -- the whole idea of competition was still, you know, very open and nobody at a really high level had ever weighed in.

The Task Force, Rostow Committee, had sort of weighed in in favor of competition, but then that report hadn't been released. So I think one of the most significant things about Open Skies wasn't just its implications for domestic satellites, but for the whole idea that the government was now in favor of competition in the communications business.

Susan Burgess: Now that certainly is true in hindsight, but did you have a sense at the time that folks like yourself and Tom were talking about that at the time?

Walt Hinchman: We certainly talked about it. I don't -- I couldn't say that it was any kind of a driving force, you know, okay we're going to use this as the wedge that opens up the whole business to competition. But at the same time, I think we recognized that the FCC was still, you know, not very decisive, and the things that happened over there were taking a long time, and that we needed to, you know, move ahead in whatever direction -- that some of these things needed to get resolved. I know that was underlying a lot of our discussions and all.

So -- and the whole idea of, you know, not having the FCC continue on with the pilot program and manage that and all, that was all part of, let's get on with it and do something in this field.

Susan Burgess: Okay. A couple -- another thing I meant to ask was the Ford Foundation had hoped that there would be some way to enable the satellites to any --

Walt Hinchman: Support educational television.

Susan Burgess: Right.

Walt Hinchman: Okay.

Susan Burgess: And then the Open Skies proposal that the working group put out doesn't mention that at all, it essentially just says anybody who wants to participate can participate. Do you recall how that was resolved?

Walt Hinchman: I probably was as much responsible for that as anything. Although certainly, you know, Tom would have not been very sympathetic to trying to subsidize something in commercial business. But I had reached that conclusion even before then, and the conclusion was simple. It wasn't that I was against it in a philosophical sense, I thought it was impractical.

Because I felt if you -- if satellites were going to compete and be effective, given that AT&T already had its big microwave network, already had the networks all signed up, you know, for television distribution.

And another thing, it looked like the main use of satellites would be for TV distribution; it looked like that was where they were the most economical. But I thought, if that's going to happen, if they're going to really be competitive, they can't be burdened with [unintelligible]. And so that if you went with the Ford Foundation proposal just to operate it on that kind of a basis, satellites would just fail to be competitive and would prove all these people right who had been saying that they weren't competitive.

So I, even during the Rostow Committee, had already argued that I didn't think -- by this time I was -- I guess I'd moved from being just a, you know -- a technical expert to weighing in -- I had, one thing -- I had a very limited amount of economics in college, had just sort of basics, but I had been exposed to an awful lot of economic thinking and thinkers during that exercise. And had, you know, come around to understand more of the economic issues, and had more appreciation for them.

So I had already, in my own mind, and in the discussions I had had with those people, had said I didn't think the Ford Foundation Proposal, much as it might sound nice for public television, I didn't think it was a very effective -- and very likely to be a successful program. I'm sure, you know, I mean -- I'm sure I expressed those views to Tom, and I'm sure he agreed with them and that's how the Ford Foundation Proposal for that kind of thing got dropped out. And we also dropped out the argument that AT&T, you know, should be the one to integrate satellites into its existing network. I mean, we just basically said we're not buying any of these, you

know, things that favor me, we're just saying fine, if you can do it better than somebody else, go do it.

Susan Burgess: And was that a general consensus on the Task Force; was everybody very easily convinced that that was the right approach to take, or based on the list of folks -- and I can read them to you again -- did you have a sense that anybody fought against that and wanted to support one proposal over another?

Walt Hinchman: Yes, the Office of Telecommunication Management was opposed to any of those ideas. They were still in favor of the pilot program, they still thought that COMSAT had basically the right to do satellite communications in the U.S., and AT&T had the right to do most any communications. I mean, they had been very closely wedded to -- well see, the OTM's -- the guy who headed it, General O'Connell, had been a Signal Corps general in the military, in his career. And the military had always relied very heavily on AT&T to support defense communications, and AT&T had done all sorts of things with the telephone network to harden it in places where it needed to be hardened, and, of course, this wasn't paid for necessarily by defense, it was paid for by the relief payers.

But OTM was -- I think how closely coupled OTM was with AT&T when I was there, there was an office in which there was a desk, and I wondered because I never saw anybody sitting at that desk, and I asked somebody one day whether that -- I'd see papers occasionally, you know, and they said, oh, that's so-and-so's desk. Well, he was the AT&T contact point for OTM; he had a desk assigned to him in OTM, and I thought that was a bit, you know, yeah, getting industry and -- that went a little bit too close together.

Susan Burgess: Yeah, I think so.

Walt Hinchman: But they were -- and it was not -- I don't even, in any way, think they were on the paper or anything like that; they firmly believed that there was only one way to run a telephone system. I don't think -- that may have been why they had never been very effective in providing advice -- any advice to the President on satellite communications, because I'm sure they thought that the -- even -- and not only I know that they thought, but I know that I'd seen arguments that they made, that COMSAT should just stick to its international business. It was a real quandary for them, by the way, because they were supportive of COMSAT in its role in the international field, because they had been treated and set up for doing that, and they had this, you know, some oversight responsibility, and they were unhappy when COMSAT wanted to put up domestic systems because that brought them into conflict with their other client, AT&T.

So I know there was internal turmoil about how they dealt with both COMSAT and AT&T, but clearly they didn't want anybody else in the picture, they didn't want, you know, Ford Foundation or any of these other people to get into the business. They happily opposed, you know, what we did, and I think we probably [unintelligible] just ignored -- they wrote memos, you know, to challenging or questioning or arguing with what we did, and I think we got to just ignore them.

Susan Burgess: Does the same go for the NASA representative, Willis Shapley; did he seem to support any proposal that would give NASA the authority over a system?

Walt Hinchman: I don't think NASA was really pushing for that; I think they would have done it if asked to do it, but I think their focus was elsewhere, you know, on space activities, and not in telecommunications. They mostly -- NASA were, I'd say noncommittal on policy issues, just, you know, providing

input on what the technology was as they saw it and where it was going. I think that's the way NASA functions.

Susan Burgess: I noticed that on the list there's no one from the Department of Defense; did it not seem -- at the time did it not seem like telecommunications or satellites would implicate defense at all, or that it would have any applications for defense? Or do you think that --

Walt Hinchman: I can't recall specifically. I suppose it was a matter that -- Defense had its own defense satellite, you know, Defense satellite systems that they were building and putting up, and I guess there was the feeling that if they wanted to use any commercial facilities, they could use anybody's commercial facilities, so I don't -- I mean, I'm just speculating, I don't recall any specific reason why Defense wasn't included.

Susan Burgess: That makes sense to me though; if Defense already had its own system, why would it need to --

Walt Hinchman: Yeah, for any hard communications, really, I mean, sensitive communications, Defense would not have used the commercial system. Defense did use, you know, the AT&T network for administrative type stuff and all that -- anything they needed in the way of satellites that were going to be sensitive or important they would have their own system.

Susan Burgess: Okay, and in terms of coming to an agreement that eventually became the Open Skies Policy, what -- could you talk to me a little bit about the process of this final draft being released? I'm sorry, that's not a very clear question. I guess what I'm wondering is, was there a sense that there needed to be a consensus among the working group members before a policy was released, or was the sense that Tom would oversee the discussion, and based on the arguments, he would select whatever he

thought was the best argument, was the best result, and present that as the policy?

Walt Hinchman: I think it was clearly the latter, because there was the inner circle, which I said was Tom and Tom Moore and me, I think, in the final analysis. And I think the understanding all along was these were advisory groups, these were groups that could help to flush out some answers to some of the questions raised and all. But it was not a deliberative process where the group had to reach consensus, and that was clearly evident in the, you know -- in the OTM when they sent their, you know, when they started seeing the direction things were going, they sent some papers in which they were very definitely challenging virtually everything that we were doing. And as I say, it was resolved by the three of us sitting in a meeting and saying this is something that we have to live with, or not, or just something that had merit, you know, and concluding not. And once we kind of reached agreement in those meetings, then I went off and did the drafting, and circulated it back. And it only got circulated back to Tom and to -- I think probably only Tom and Tom Moore.

Susan Burgess: And is Tom Moore still around?

Walt Hinchman: And final editing and then, you know. Yeah -- oh, I'm sorry.

Susan Burgess: I just asked is Tom Moore still around?

Walt Hinchman: You know, I -- that was a very brief six days I had with Tom Moore, and I think when he left to the Council of Economic Advisors thinking, you know, not too long a time, and I had never heard from him or nobody since. I'm sorry. I can't answer your question. [sentences confusing – transcription error?]

Susan Burgess: Okay.

Walt Hinchman: But I could -- for a long time, I had the drafts of that final, you know, the policy paper; my own copies of the drafts with marked up editing and all, and what I recall is that, you know, I'd write up something which I thought was the consensus of what we agreed, and circulate a copy Tom -- to the two Toms, and, you know, we either get comments back or Tom Whitehead would, you know, call another get together, and we'd sit around and look at that and agree, and go back and write up a different version.

Susan Burgess: Okay. Actually, another thing I wanted to ask --

Walt Hinchman: [Unintelligible] body at that point.

Susan Burgess: The other thing I wanted to ask about the policy was about the place, the positions of the satellites. Was that something that you guys talked about?

Walt Hinchman: Gee, I don't -- I don't know that we talked about it. I think -- see, this is -- I'm having a little trouble sorting out what was done during that initial thing, because then after that, you know, Open Skies went over to the Facilitator [? transcription error?], and the FCC basically bought the idea and turned down this past idea over there at the pilot program, and then the commissioned -- they even invited applications, you know, and got applications.

And by that time we had created OTP, which was an outgrowth of that domestic satellite exercise. But during that time, when we were working on the domestic satellite policy in, you know -- just in my discussions with Tom, we talked about other issues in communications that the White House ought to be weighing in on, and came to an agreement that

there needed to be -- what we thought of at the time was a small office, very small, you know, just mainly to identify issues and put together these kind of working groups who address other communications issues, and that's how TBS started.

And, of course, then, once Tom got in and I got into OTP, we had a lot of follow up to that Open Skies with the Commission about things like, you know, who should be getting -- allowed in certain orbital spots in order to serve Alaska or serve Hawaii, or, you know, do things like that. And also, I -- but I don't think that came out during the Open Skies Policy development itself.

Susan Burgess: Right, because that was more general.

Walt Hinchman: Yeah, it was more general, basic philosophy of how it should be done. Even the question of AT&T's role; I know we discussed it, I don't remember what we said. You probably have -- what -- did Peter Flanigan's notes say anything specifically about AT&T?

Susan Burgess: Nope, it just generally says that anybody who wants to put up a satellite can put up a satellite.

Walt Hinchman: Now, during our discussions, certainly the issue of AT&T's role, we discussed it, Tom and I -- Tom Moore -- and about their ability to shift tremendous amount of traffic immediately because they controlled all the domestic traffic, and they could make a satellite economically viable on day one, whereas everybody else would have to go out and build a market.

And so, that was a concern. But at the same time, Tom was not willing and I agreed with him, that we should, you know, arbitrarily say up front,

AT&T should be restricted in some. But later on, when OTP was formed and we were still, you know, filing things with the FCC and the FCC was going on with these proceedings, I think we did weigh in on the issue of AT&T's role and how it should be, you know, restricted and all.

Susan Burgess: Okay. I'm actually looking right now at the --

Walt Hinchman: First time -- some of the things were discussed the first time around but they weren't really into that. So this was just a basic, you know, fundamental policy issue as far as we were concerned.

Susan Burgess: Right. And just to make sure, I'm double-checking and now it does not mention AT&T in the initial letter. Speaking of this submission to the FCC, how is it received? At this time, Dean Burch was the chairman.

Walt Hinchman: Well apparently -- my understanding was, see, before it was released, I was back in Colorado again. I think probably right around Christmas or some time in '69, just before, I -- we basically wrapped up the work, and it was just a question of, you know, when they were going to get around to releasing the thing, and I came back to Colorado. And so I wasn't back in D.C. area in -- for the next several months. I was talking to Tom a lot on the phone and all. So I know that basically, Dean Burch and [unintelligible] of the commissioners agreed that the basic principle that they sent us back to the Common Carrier Bureau -- Bernie Strasberg and the Common Carrier -- back to square one, said okay, no pilot program, go back and redraft the decision which they had drafted in looking toward a program, to do basically an Open Skies.

Now, the FCC wasn't nearly as willing as we were to just say anybody, you know, can come in, because they had their statutory concerns as well as just their institutional concerns about keeping things under control. So

it, you know, it took a lot longer before there was final authorization for anybody to actually go and do it. But I think the general philosophy, I think, the commissioners, at the commissioner level, bought it.

Susan Burgess: A few of those --

Walt Hinchman: I don't know that Strasberg and the Common Carrier Bureau, you know, they didn't fall on their swords over it or anything; I'm sure not what they would have preferred, but I think they bought into the idea pretty much.

Susan Burgess: Do you have a sense that Tom allowed the FCC to take credit for Open Skies?

Walt Hinchman: Allowed FCC to take credit for Open Skies?

Susan Burgess: Yeah, allowed them to take credit for the Open Skies Policy?

Walt Hinchman: Oh, I don't think so. I mean, it was a pretty significant thing for, you know -- for the White House to put out that kind of a statement, and certainly the Commission reversed course. I mean, I don't know if Tom, you know, had any great sense of destiny or something, [unintelligible] that -- keep in mind, Tom, at the time, was still dealing with Maritime and NASA, and there were big issues about, you know, the -- what NASA was supposed to be doing in -- that was -- the Shuttle Program was, you know, up in debate the [unintelligible].

But I know that the telecommunications was still, for some time, secondary or tertiary in Tom's priorities. Because he really had to do the other things, and I think telecommunications is kind of, you know, fell to [unintelligible] there was only -- and during that time, those early months of 1970, we had already put together the executive order to create the

OTP, and all, and I was trying to help him recruit somebody to head the office, and had come up with names from all the different people I had encountered in industry who I thought were, you know, good and would be good candidates, and passed that along to Tom, and he was then checking with them, and nobody was willing to come in to the government. They were all doing too well in industry.

And it was -- I think it was several months had gone by, and I was, at that time, out in Colorado, and had actually left the laboratories and was just doing private consulting on my own. And must have been some time that spring that I got a call from Tom, and he said, "Well, we've finally found a Director for the Office of Telecommunications Policy," and I said, "Oh, who is it?" And he said, "Me." And then he went on to explain, but I guess Flannigan had kind of said at some point that, you know we've created this office, it hadn't been established yet, you know, we said it was important to do, and we need to get on with it.

And I don't know how agreeable or unagreeable Tom was at the time and anyway, that just -- he kept -- he got the tap on the shoulder.

Susan Burgess: Could you tell me, just so that I hear it in your words, what was so important about the Open Skies Policy? Why did it matter, and why is it important that it says what it says instead of one of the other proposals submitted by industry?

Walt Hinchman: I think the Open Skies Policy was the first time that an administration or, really, really top levels of government had said that there should be a part of the telecommunications business that was open to competition, and anybody should be able to get into it. While the FCC had made some tentative steps in that direction, they were still very tentative, they were still under court review, and they're still subject to further Commission

actions. And so it really did kind of nail down the idea that competition was possible in the U.S. telecommunications business.

Susan Burgess: And taking that a step further, that was important because it signified that there could be greater competition successfully in other areas such as broadcasting or telephone.

Walt Hinchman: Right, right. And the telephone, primarily -- I don't think there was much already in it that was accomplished. In fact, you had multiple networks, and you had cable TV and all of it in the telecommunications services business, the providing of handling telecommunications, you know, for hire there just is not the [unintelligible] up until then that much of that, if any of it could be open and competitive. And I think it signaled [unintelligible] high level government [unintelligible].

Susan Burgess: Going back, I just wanted to clarify, when you were working with Tom on Open Skies Policy, did you report to him?

Walt Hinchman: Did I report to him?

Susan Burgess: Yeah.

Walt Hinchman: Yes. I said I still had the -- I was on loan from the Department of Commerce basically, and so I still had my position, and I was paid by the Department of Commerce out here in Colorado. But I spent all my time, virtually for that -- close to six months, I guess it turned out to be -- going back and forth to Washington and reporting directly to Tom.

Susan Burgess: Okay, I assumed -- that's what it sounded like, but I just wanted to clarify. And finally, I wanted to ask you to help me understand from a technical perspective, because I am not an engineer and I do not have a science

background; if you could just explain to me a little bit about satellites and their relationships to these microwave towers, and the relationship with cable. Because I think that these were all issues that were brewing when the Open Skies decision was made. I think you said that one of the things that you were looking at in Denver was how microwave interference affected satellites or the other way around; if you could just explain to me a little bit in a very, very simple way.

Walt Hinchman: Okay. All radio communications involves the use of frequencies, different radio frequencies. That's the rate at which the electromagnetic energy vibrates, okay? And there are only, you know, a certain -- I mean, there's a range of these frequencies, and different ranges of frequencies are better for different things. Microwave is a range of frequencies that -- around 400 -- I'm trying to remember now, my technical -- four million cycles per second, let's say, okay, is a typical microwave frequency.

Those frequencies had been assigned, initially, for microwaves, regular communications along the surface of the earth, called microwave relays. That's what you see if you travel across the country, you'll see a lot of times towers with antennas on them which are pointing horizontally in both directions, and it's to relay these radio signals across the country. And they were used by AT&T for both telephone and data traffic, and also for television because at those high frequencies, these are called very high microwave frequencies, they have a carrying capacity that will allow them to carry a whole television signal, whereas a radio frequency of your personal radio can't carry television information, so you have to use these very high frequencies. And AT&T had developed this microwave network.

Well, when satellite came along, there were no frequencies available that hadn't already been assigned to these microwave systems. And so

internationally, it was decided that satellites could use the same frequencies as the microwave systems used because satellites, instead of sending the signal along the surface of the earth, they send it from space to earth and from earth to space. And so it's basically perpendicular to the path that the microwave would be going on. And radio signals don't interfere if they just cross one another in space like that; they only interfere if one receiver gets the signal from two different sources.

Well, my argument and the argument -- and that's how I got into all this, is because I had been into radio frequency, radio propagation and what happens with radio frequencies, that's the work I had been doing in Colorado. And I believed, and the satellite people believed that because the satellite was transmitting perpendicular to these microwave towers, that the satellite energy was not going to get into these microwave receivers and cause any interference.

AT&T wanted to have those frequencies all exclusively for its own, but it also wanted to discourage the development of satellite communications. So it argued that, well, you know, if the satellite was near the horizon or the signal got reflected from water vapor in the atmosphere or something, that it could get into their microwave system and cause interference.

And there had not been specific studies done on this when the first issue of satellite communications first came up. One of the things that I recommended when I was at the OTM in that first session was that there be some measurements done to test this thing. My personal belief was, and the views of a lot of people that I had a lot of respect for, was that there would not be any significant interference, and slight interference could be avoided by proper, you know, coordination between the microwave and the satellite.

But, since there was not empirical data on this, I suggested to OTM that there be a test program run by NASA. And that was approved; there was actually -- I don't know if it ever did get completed, but NASA took some money and was setting up to do some interference measurement program, during the course -- I think that's during the course of the Rostow Committee that that work was ongoing. It wasn't part of Rostow Committee, it was a separate thing. And so that much was an attempt, you know, to resolve that one question.

What finally happened was, it just got kind of bypassed because there hadn't been any interference and it became more conclusive, I think, in everybody's mind, that there would not be interference so by the time we came out with Open Skies, the results, if there were any results in that NASA program, just were, you know, were never incorporated.

Susan Burgess: Okay, so --

Walt Hinchman: But anyway, the basic idea is that as long as the radio signals are simply crossing one another in space, there's no interference. It's only if the two signals can both go into the same receiver that you can get interference, and that's very unlikely when you have microwaves going along the surface of the earth and satellites going from space to earth and back.

Susan Burgess: And then with cable, can you explain to me how cable and satellite have a relationship?

Walt Hinchman: Well, I don't know -- there's certainly no interference relationship. I suppose the only relationship is whether cable is going to be more economic than satellites. And, you see, over -- at that time and throughout quite a number of years, there was an ongoing debate in terms of overseas communication, primarily transatlantic communications, transpacific

communications, as to whether satellites were cheaper or cables -- fiber -- first they weren't fiber optic cables, now they're fiber optic cables. But it was -- those were economic arguments, you know -- can you lay a cable under the ocean cheaper than you can put up a satellite and [unintelligible] station on both sides of the ocean and all.

Susan Burgess: I thought that maybe there was some sort of -- and this, again, I don't have any technological background, but I thought there might have been some way in which satellite could distribute programming to some location --

Walt Hinchman: Well yeah, [unintelligible] that satellite was -- satellite's great strength was the ability to take one signal from one location and basically broadcast it over the whole country or over the whole world, you know, on the antenna beam. And this looked like a very attractive way to -- either to do broadcast network distribution to the local stations, or to keep the head ends of cable systems, rather than having to string the whole nationwide network of either microwave or, you know, cable, you could take one satellite and beam it down, and just use it as your distribution mechanism. That's a unique feature of satellites because their [unintelligible].

One of the arguments of the early days was satellite's just a very tall microwave, that's how it was described. And my counter-argument to that was well, yeah, it's just that it's a very tall microwave tower, but it sees the whole earth, and the microwave system sees only the next tower, you know, along the line. So you would have to string a whole lot of those together to cover an area, whereas the satellite automatically covers the area with one signal.

Susan Burgess: Okay, that makes sense to me, but am I understanding correctly that what you're saying correctly about cable and satellite, is that maybe the satellites could allow the cable industry to grow because --

Walt Hinchman: Yeah.

Susan Burgess: -- it distributed --

Walt Hinchman: Yeah, but very quickly, all these small -- you know, cable started out as -- and its actual name was Community Antenna Television, because they were just little local systems that took off the air broadcast and distributed it around in the community. So initially, cable was a nationwide bunch of small, independent systems, and Certain [? Transcription error?] Satellite was the first promise that you could have a real network of cable systems by satellite and that's what Ted Turner did with CNN, you know, was he made a whole news network just by making cable systems with satellite.

Susan Burgess: Okay, well thank you so much, Walt, this has been a great conversation and I really appreciate your taking your time to tell me all this and to --

Walt Hinchman: And if you have any further questions, don't hesitate to call; I'll try to dredge back through my memory and -- I've been supposed to write a book, myself, for the last 20 years. My friends all say, you know, you're the only one who was there during all of this. I mean, people came and went, you know, and I wasn't always at the top of a lot of the decision-making, but I was right near enough the top to know what was going on. This goes back, you know, before the domestic satellite and then through the breakup of AT&T, and they say, you know, you've got to write your book. And I keep saying, yeah, I've got a lot of material, if I could ever find and dig into it. So maybe you'll stimulate me to get on with mine.

Susan Burgess: Yeah, it's definitely an important story to tell.

Walt Hinchman: All right?

Susan Burgess: Well, thanks Walt. I'll let John Eger know that we had a really good discussion.

Walt Hinchman: Okay, and like I say, give me a call if you need more.

Susan Burgess: Okay, I will certainly do that.

Walt Hinchman: Bye-bye.

Susan Burgess: Bye-bye.

End of recording.